

RAND REVIEW

Summer 2004

Vol. 28, No. 2



DISTRIBUTION STATEMENT A
Approved for Public Release
Distribution Unlimited

Localize the Remedy

Community Efforts Can Ameliorate Poor Quality of Care

—By Elizabeth A. McGlynn

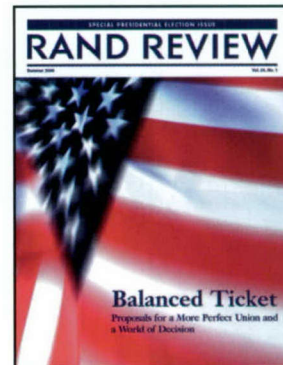
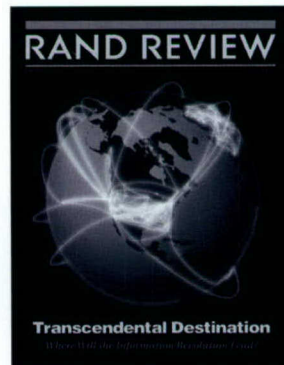
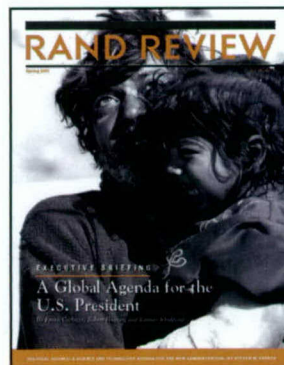
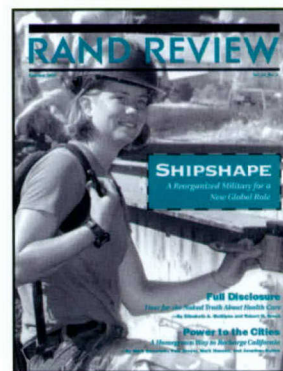
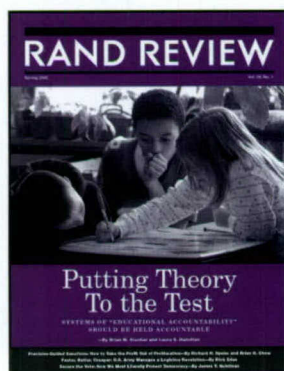
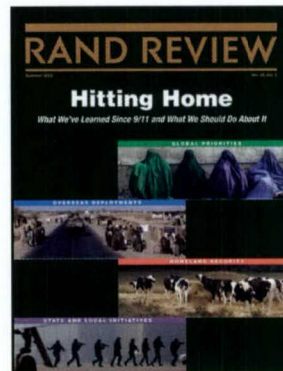
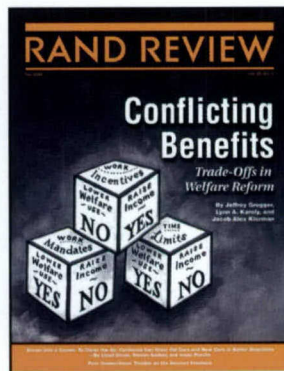
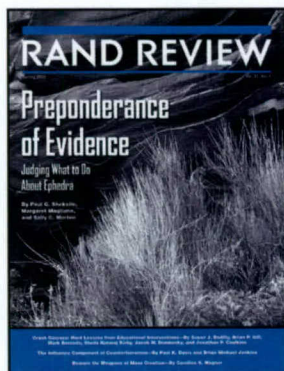
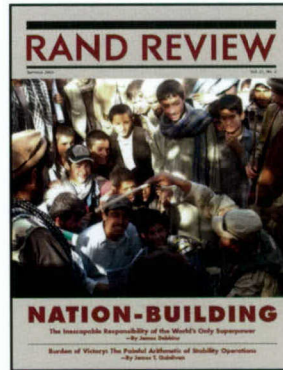
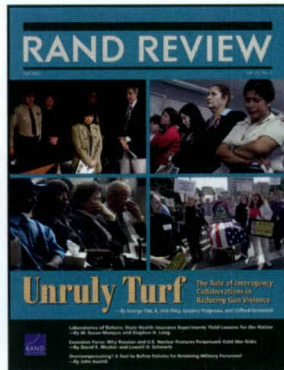
Selective Service: Bring Back the Draft in Iraq, Not Here
Counterinsurgency in Iraq: Lessons Old and New
Foot in Mouth: Finding Better Uses for Policy Research



TRIALS and TRIBULATIONS
The Future of American
Civil Justice

Get the Big Picture

RAND Review covers the big issues with an eye for the important details.



RAND REVIEW

Editor-in-Chief
John Godges

Associate Editors
Paul Steinberg
Laura Zakaras

Assistant Editor
Christina Pitcher

Proofreaders
Miriam Polon
Kelly Schwartz

Art Director
Ronald Miller

Designer
Eileen Delson La Russo

Production Editor
Denise Constantine

Circulation
Christine Troncoso

Web Producer
Brett Grodeck

Editorial Board

Dominic Brewer, David Egner, Bruce Hoffman, James Hosek, James Kahan, Iao Katagiri, Kevin McCarthy, Elizabeth McGlynn, K. Jack Riley, Shirley Ruhe, Mary Vaiana

RAND Board of Trustees

Ann McLaughlin Korologos (chairman), Bruce Karatz (vice chairman), Carl Bildt, Harold Brown, Frank C. Carlucci, Lovida H. Coleman, Jr., Robert Curvin, Pedro Jose Greer, Jr., Rita E. Hauser, Karen Elliott House, Jen-Hsun Huang, Paul G. Kaminski, Lydia H. Kennard, Philip Lader, Arthur Levitt, Lloyd N. Morrisett, Paul H. O'Neill, Amy B. Pascal, Patricia Salas Pineda, John Edward Porter, John S. Reed, Donald B. Rice, James E. Rohr, Jerry I. Speyer, James A. Thomson

RAND Review is published periodically by the RAND Corporation, a nonprofit institution. The mission of the RAND Corporation is to help improve policy and decisionmaking through research and analysis. Opinions are those of the authors and do not reflect positions taken by RAND, its board, or its sponsors.

LETTERS Send letters to: Editor, *RAND Review*, 1700 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138, or email godges@rand.org.

PERMISSIONS For information about using material published in *RAND Review*, visit www.rand.org/publications/permissions.html.

COPIES For hard copies of *RAND Review*, call (877) 584-8642 (toll free) or (310) 451-7002 (outside the United States); send a fax to (310) 451-6915; or email order@rand.org.

REPORTS Most reports cited in these pages may be purchased. To place credit card orders, contact RAND at the phone numbers or email address listed immediately above. National Book Network (NBN) also carries selected RAND titles. Call NBN at (800) 462-6420.

ABSTRACTS Selected abstracts of RAND documents are available at www.rand.org/Abstracts.

© Copyright 2004 RAND Corporation

RAND: OBJECTIVE ANALYSIS. EFFECTIVE SOLUTIONS.

For previous editions and free online subscriptions, visit www.rand.org/publications/randreview.

Message from the Editor

For the first time ever, a wealth of data exists on the quality of health care that has been delivered to fight the leading causes of death and disability in 12 U.S. metropolitan areas. The 12 communities, which collectively represent the types of communities in which most Americans live, can now use the new information to improve the quality of care in their own optimum ways, beginning with hard evidence about the unique strengths and weaknesses in care in each locality.

As Elizabeth McGlynn notes in her cover story, the information alone cannot do the job. Even high-tech, computerized, and automated information systems are merely necessary but not sufficient. Teams of doctors, nurses, and health educators need to use the information collaboratively. Local medical groups, regional health plans, public health clinics, and large employers need to join forces to tackle common problems of care in their communities. And patients, armed with information, need to do their part as well.

With respect to doing one's part, military analyst James Quinlivan answers the chorus of voices, both conservative and liberal, that have called for a reinstatement of the U.S. military draft for the sake of securing Iraq and Afghanistan. In an instance of truly original thinking on Iraq, Quinlivan enumerates the conditions that would justify either an American or an Iraqi draft on behalf of that country—and the conditions that would not.

In a special expanded section of *RAND Review*, nine legal experts mark the 25th anniversary of the RAND Institute for Civil Justice by peering into the legal future. Some of the experts argue that American justice has strayed from its founding principles. Others argue that the justice system cannot defend its founding principles until it catches up with the modern age. Still others argue that some of the recently proposed changes to "reform" the system will lead it only further astray. But all of the experts agree that the future of civil justice relies on the gathering of unbiased information—a rare and precious commodity within a system built on competing positions of bias.

—John Godges

On the Cover

Members of the "Pulmonica Puffers," a group of pulmonary rehabilitation patients from a Christus Schumpert health facility in Shreveport, La., perform on harmonicas during their first concert on April 21. The music program not only is fun but also helps patients improve their airflow and strengthens their diaphragms. Puffers shown are Jimmie Sue Walsworth, Meta Rust, Marjorie Brown, and Bert Earley.

AP/WIDE WORLD PHOTOS/JIM HUDELSON, THE (SHREVEPORT) TIMES

RAND REVIEW

Summer 2004

Vol. 28, No. 2

4 News

- Counterinsurgency in Iraq
- Growing worries for British businesses
- Acceleration for the U.S. Coast Guard
- Macro lessons from MICRA

Perspectives

8 Shall We Overcome?

Fifty years later, we're often still separate and unequal

10 Plots and Curves

What Mexican sex workers can teach economists about preventing HIV

12 COVER STORY Localize the Remedy

Community efforts can ameliorate poor quality of care

By Elizabeth A. McGlynn

18 Selective Service

Bring back the draft in Iraq, not here

By James T. Quinlivan

20 Foot in Mouth

Finding better uses for policy research

By Jonathan Grant, Mirjam van het Loo, Sally Ann Law, Silvia Anton, and Jonathan Cave

24 SPECIAL SECTION Trials and Tribulations

Expert witnesses chart the future of American civil justice

By Robert T. Reville (and others)

46 Commentary

Racial Profiling—Not Always Black and White

By Greg Ridgeway

Counterinsurgency in Iraq: Lessons Old and New

From Vietnam to El Salvador and now to Iraq, America has had mostly ill-fated experiences in fighting counterinsurgencies. Over the past 40 years, the United States has been frustrated in such operations, seemingly condemned to repeat past mistakes.

"It's like the 1993 film, *Groundhog Day*, where Bill Murray plays an arrogant television weatherman fated to relive the same day—February 2nd—and the same unedifying experiences over and over," said RAND Washington Office Director Bruce Hoffman, who briefly served with the Coalition Provisional Authority in Baghdad dur-

ing the spring of 2004 advising on counterterrorism and counterinsurgency. "But whereas Murray eventually rights his wayward path and attains true spiritual enlightenment, a similarly decisive epiphany has yet to occur with respect to America's historical ambivalence toward counterinsurgency."

Prior to serving in Baghdad, Hoffman had written a study on insurgency and counterinsurgency, looking at what had gone wrong in Iraq and what it might bode for the future. Using primarily interviews with those involved in Iraq, along with secondary sources, the study had noted that the failure of the United States to adequately account for the "political dimension" at the heart of counterinsurgency—in other words, to plan, to implement, and to coordinate post-invasion stability operations—had arguably breathed life into the insurgency.

Hoffman's subsequent experience in Iraq confirmed his analysis.

Yet another inadequacy, Hoffman wrote, has been on the military side of the equation, particularly the inability to acquire actionable intelligence. He stressed the importance of relying on human intelligence in fighting insurgencies rather than on electronic intelligence and signal intercepts.

Even more ominously, Hoffman concluded, the ongoing insurgency in Iraq represents a new form of warfare involving loose networks of combatants who come together for a discrete purpose and then quickly disperse after achieving it. If the insurgency is a harbinger of the future, it has serious implications for how military forces should train, equip, and organize. ■

For more information: *Insurgency and Counterinsurgency in Iraq* (RAND/OP-127-IPC/CMEPP).

Over the past 40 years, the United States has been . . . seemingly condemned to repeat past mistakes.

British Businesses Increasingly Concerned About Terrorist Attacks

The percentage of British businesses expecting to experience some form of terrorist attack jumped from about a quarter in 2003 to more than a third in 2004—a 50 percent increase—according to a new study by RAND Europe and by Janusian Security Risk Management.

Based on a survey of 88 security and risk-management professionals at major British corporations, the study found that the growing concern in the business community is fueled by fears of al Qaeda and by instability in the Middle East. A staggering 93 percent of respon-

dents believe that the war with Iraq has increased the threat of global terrorism.

Major terrorist attacks in Saudi Arabia, Istanbul, and Madrid over the last year all added to the sense of threat felt by businesses. But as Kevin A. O'Brien, a study author, said, it is interesting that the "Madrid attacks of 2004—which targeted the general public—were of greater significance threat-wise to businesses than the November 2003 Istanbul double bombings, which directly targeted the HSBC bank."

On a positive note, only 16 percent of the respondents felt that security measures introduced since the 9/11 attacks have decreased their organization's ability to achieve its business goals, with 54 percent feeling that security measures have been beneficial. David Claridge, another study author, noted that such attitudes "dispel the commonly held assumption that security is always a hindrance to businesses." ■

For more information: www.janusian.com/survey.

U.S. Coast Guard Needs to Accelerate, Expand Modernization Plan, Study Finds

The largest and most complex modernization plan in U.S. Coast Guard (USCG) history began in 1998. Then, in the wake of the terrorist attacks of Sept. 11, 2001, the USCG became the largest organization in the newly formed U.S. Department of Homeland Security and was asked to perform expanded homeland defense duties and other maritime responsibilities in the war against terrorism *in addition* to its traditional missions.

Will the original plan to slowly but steadily replace and modernize aging assets—known as the Integrated Deepwater System Program, or simply Deepwater—provide the USCG with the right types and number of assets for the challenges it faces in the post 9/11 world? According to a RAND Corporation study, the answer is “no.”

Assuming the USCG intends to perform 100 percent of its mission responsibilities in the future, unlike during previous years of chronic underfunding, the USCG will need the capabilities of twice the number of cutters and 50 percent more air vehicles than it has been planning to acquire over the next 20 years.

Merely buying more of the same assets may not be the most cost-effective solution, according to lead author John Birkler. Instead, the study recommends a two-pronged strategy. The USCG should meet its mission demands by (1) accelerating and expanding the asset acquisitions in the current Deepwater program and,

simultaneously, (2) identifying and exploring new platform options, emerging technologies, and operational concepts that could leverage those newly acquired assets.

First, the acquisition of new cutters and air vehicles can be accelerated from the original 20-year schedule to a 15- or 10-year timetable. Doing so would not significantly change the total acquisition cost but would roughly double annual expenditures. Acquiring the assets sooner would dramatically boost the USCG's capability in the short term, enabling it to operate its cutters and air vehicles for many more mission hours and to increase the detection coverage area for air-borne sensors. However, even more

assets would be required to meet long-term needs.

Second, a successful strategy must also include new operational and technological alternatives. For example, stationary offshore platforms could be used as operating bases to leverage the capabilities of a variety of surface and air vehicles. Other options could include using airships or unmanned air vehicles to handle observation patrols for long periods of time, thus cutting the reliance on manned ships and air vehicles. ■

For more information: *The U.S. Coast Guard's Deepwater Force Modernization Plan: Can It Be Accelerated? Will It Meet Changing Security Needs?* (RAND/MG-114-USCG).

Assuming the USCG intends to perform 100 percent of its mission responsibilities in the future, . . . the USCG will need the capabilities of twice the number of cutters and 50 percent more air vehicles than it has been planning to acquire over the next 20 years.

California Medical Malpractice Law Alters Jury Awards in Uneven Ways

As Congress considers imposing new rules on states that have not already adopted restrictions on malpractice litigation, many proponents of such rules point to California's Medical Injury Compensation Reform Act (MICRA) as a model for change.

California enacted the legislation in 1975 when the state faced a medical malpractice insurance crisis, with premiums skyrocketing and some medical specialists unable to find coverage. The law was passed in hopes of stabilizing the medical liability insurance market by limiting the size of awards and the frequency of defendant exposure to malpractice claims.

MICRA has two key provisions. First, it limits (or "caps") to \$250,000 how much a plaintiff can recover at trial for *non-economic* damages—such as pain, suffering, emotional distress, or mental anguish—but does not cap awards for *economic* damages—such as the costs of medical care or lost wages. Second, MICRA limits the fees that plaintiffs' attorneys can collect, establishing a "sliding scale" that decreases the maximum allowable percentage paid to attor-

neys as the size of any trial award or settlement grows.

When juries in California render malpractice judgments, they do so without knowing the limits imposed by MICRA. Judges then adjust the awards, prior to entering the final judgment, to comply with the state law.

How has MICRA altered the verdicts being rendered by juries in these trials? According to a RAND Corporation study that analyzed data from 257 medical malpractice trials with verdicts in the plaintiffs' favor from 1995 to 1999, 45 percent of the verdicts had non-economic damage awards that exceeded the MICRA cap and, as such, would have been reduced by the judge following trial. Jury awards in death cases were reduced more frequently than those with non-fatal injuries—58 percent of the time compared with 41 percent.

These reductions dramatically eased defendant liabilities in these cases. Aggregate final judgments (after any mandated reductions) were 30 percent less than what the juries had originally awarded (25 percent for injury claims and 57 percent for death claims). But because of the striking impact on attorneys' fees caused by MICRA's limits on awards and fees, the net recoveries (final judgment less attorneys' fees) of plaintiffs in these cases averaged a more modest 15 percent reduction (see the figure).

RAND researchers estimated what attorneys' fees and plaintiffs' net recoveries might have been in these cases in a "non-MICRA"

world without any award cap or sliding scale (the blue bars), assuming also that in the absence of any statutory fee limits, a 33.3 percent contingency fee rate would have been the norm. Under MICRA, as represented by the bar chart on the left, total attorneys' fees paid in these cases would have dropped 60 percent.

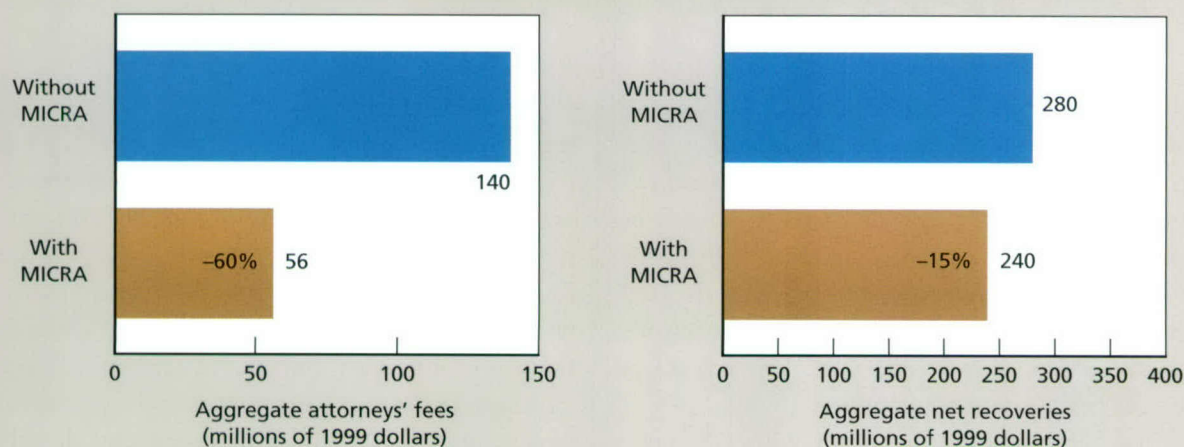
One reason for restricting attorneys' fees was to lessen the impact on plaintiffs from the award cap; indeed, the substantial reduction in fees paid to counsel wound up offsetting, to varying degrees, the effects of the \$250,000 limit. The bar chart on the right shows that without MICRA, according to the study, the plaintiffs would have realized net recoveries of about \$280 million. Because of the reduced attorneys' fees, the net recoveries for plaintiffs dropped only 15 percent to \$240 million under MICRA.

But these aggregate numbers hide significant differences in MICRA's effects on different types of cases. Depending on the type of claim and size of the original jury award for non-economic loss, a plaintiff might have a better or worse net outcome as a result of MICRA.

For example, the net recoveries for plaintiffs with non-fatal injuries who originally had received jury awards of \$250,000 or less in non-economic damages *increased* 19 percent, on average, under MICRA. In contrast, the net recoveries for plaintiffs in death cases whose original awards for non-economic damages had exceeded \$1 million *fell* by an average of 64 percent.

Plaintiffs who lost the most money under MICRA in absolute terms were often those who suffered the severest non-fatal injuries as newborns or young children.

Although Attorneys' Fees Dropped 60 Percent, Net Recoveries for Plaintiffs Dropped Only 15 Percent



SOURCE: *Capping Non-Economic Awards in Medical Malpractice Trials*, 2004.

Those with the severest non-fatal injuries (brain damage, paralysis, or a variety of catastrophic losses) had their non-economic damage awards capped far more often than those with injury claims generally. Brain damage cases, for example, were capped 65 percent of the time. Those with the severest non-fatal injuries had median reductions exceeding \$1 million, compared with \$286,000 for all injury cases.

Plaintiffs who lost the most money under MICRA in *absolute* terms were often those who suffered the severest non-fatal injuries as newborns or young children. These cases often had reductions of more than \$2 million in non-economic awards. However, these cases also involved substantial economic awards (for lifetime medical treatment, attendant and custodial care, and rehabilitation) that were not affected by MICRA and that

sometimes exceeded what the jury originally had awarded for non-economic damages. The end result was that the final judgments in these cases remained at relatively high levels even after any reduction.

In contrast, plaintiffs who lost the most money under MICRA in *relative* terms (i.e., losing the highest percentage of their total awards) were often those with injuries that led to relatively modest economic damage awards (about \$100,000 or less) but caused a great loss to the quality of life (as suggested by a jury's million-dollar-plus award for non-economic damages). Final judgments for these plaintiffs were sometimes cut by two-thirds or more from the jury's original decision.

Not only would plaintiffs wind up with a much smaller relative recovery in these sorts of claims, but attorneys would also find their percentage-based contingency fees

reduced markedly as a result of the post-verdict cap. "As a result of MICRA," noted lead author Nicholas Pace, "plaintiffs may find it harder to find an attorney willing to represent them, especially when the claim involves a death or relatively small economic losses."

MICRA appears to have had the intended initial result of limiting defendants' expenditures, though at the price of altering the jury awards for certain types of claims more frequently and to a greater degree than others. Determining whether such savings have translated into reduced premiums, greater availability of coverage, and a more stable health care delivery system—the California legislature's ultimate goals for MICRA—requires further analysis. ■

For more information: *Capping Non-Economic Awards in Medical Malpractice Trials: California Jury Verdicts Under MICRA* (RAND/MG-234-ICJ).

Shall We Overcome?

Fifty Years Later, We're Often Still Separate and Unequal

SINCE THE 1954 U.S. SUPREME COURT decision in *Brown v. Board of Education* struck down the "separate but equal" doctrine and mandated that America's public schools be desegregated, efforts to implement the ruling have met with mixed success, both in the schools and in the courts. New research in the field shows that some schools are now resegregating, while there is evidence that the courts are less inclined to intervene in the public school system.

Since the 1964 Civil Rights Act, efforts to implement affirmative action policies have also had a contentious history. The Supreme Court's 1978 *Bakke* ruling set limits that aimed to prevent affirmative action on behalf of minorities from coming at the expense of the rights of the majority. And while states like California, Washington, and Florida have recently taken steps to ban affirmative action, the Supreme Court upheld affirmative action in a 2003 ruling by arguing that the

University of Michigan Law School could use race as one of many factors in admitting students.

As the nation reflects upon the 50th anniversary of *Brown v. Board of Education* and the 40th anniversary of the Civil Rights Act, now is an opportune time to ponder the question, "Whatever happened to integration?" In a wide-ranging and provocative talk at RAND, Glenn Loury, professor of economics at Boston University and director of the university's Institute on Race and Social Division, presented some thoughts on the subject.

Reconsidering Affirmative Action

When Justice Sandra Day O'Connor delivered the majority opinion in 2003 upholding affirmative action, she argued that the need for affirmative action today is "extraordinary." She elaborated: "We expect that 25 years from now, the use of racial preferences will no longer be necessary."

Loury disagreed that affirmative action is an extraordinary measure for today, asserting that the need for it will continue as long as society retains a "demand for racial diversity." That the demand still exists, he noted, is evident in the friend-of-the-court briefs submitted in favor of the 2003 ruling.

In one of those briefs, American businesses "made clear that the skills needed in today's global marketplace can only be developed through exposure to widely diverse people." The military filed a similar brief, arguing that a "highly qualified, racially diverse officer corps . . . is essential to the military's ability to fulfill its principal mission to provide national security."

If affirmative action were constitutionally banned, said Loury, institutions that still want to promote the goals of affirmative action would find the means to do so within the letter of the law. But he claimed that such "color-blind" means could be less effective, less efficient, and even less merit-based than the current "color-sighted" affirmative action policies.

For example, the "percentage plans" now in place in Texas and Florida guarantee admission to the pub-

George E. C. Hayes, Thurgood Marshall, and James M. Nabrit join hands as they pose outside the U.S. Supreme Court in Washington, D.C., on May 17, 1954, the day the court ruled that segregation in public schools is unconstitutional. The three lawyers led the fight for abolition of segregation.



AP/WIDE WORLD PHOTOS

lic university system for the top 10 and 20 percent of high school students, respectively. One drawback of such plans, according to Loury, is that they could admit a less-qualified African American student from a less-competitive inner-city school at the expense of a more-qualified African American student from a more-competitive suburban school.

Closing the Racial Gap in Test Scores

Loury acknowledged that there is still wide disparity between racial groups in the distribution of test scores and recognized the need to close the gap. But he argued that closing the racial gap might not be an appropriate goal for public policy, for two reasons.

First, he worried that framing the problem in racial terms could backfire if we tackle the problem and then fail to solve it. Such a failure could exacerbate racial stigma and further diminish the position of African Americans in society.

Second, he said that the gap may be a product of "African American culture" broadly defined, for example, as how African American parents raise their children or how African American kids respond to peer pressure. From a public policy perspective, closing the gap would thus put policymakers in the untenable position of trying to alter some aspects of African American culture.

For both reasons, Loury stressed the need to frame the public policy problem in a way that does not "racialize" the solution. The problem could be framed more inclusively, either as raising the test scores of all poor-performing students or of improving the way we, as a society, raise our children, regardless of race, and encourage them to resist peer pressure. In the latter case, he went on to suggest that efforts to influence African American culture from within the African American community itself (such as working with parents through community-based churches) would be better positioned to address this issue without racializing it.

Overcoming Racial Stigma

As for the route to integration, Loury said the focus of efforts during the past few decades has been on eliminating discrimination in "contract"—or formal discrimination against African Americans in the job market or in the educational system. Such a focus was the driving force behind both *Brown v. Board of Education* and the Civil Rights Act.

Now is an opportune time to ponder the question, "Whatever happened to integration?"



AP/WIDE WORLD PHOTOS

U.S. President Lyndon B. Johnson reaches to shake hands with Dr. Martin Luther King Jr. after presenting the civil rights leader with one of 72 pens used to sign the Civil Rights Act of 1964 in Washington, D.C., on July 2, 1964. Surrounding the president, from left, are Rep. Roland Libonati, D-Ill.; Rep. Peter Rodino, D-N.J.; Rev. King; Rep. Emanuel Celler, D-N.Y.; and Whitney Young, executive director of the National Urban League.

Loury argued for the need to switch the focus to overcoming discrimination in "contact"—informal discrimination against African Americans that constrains how they socialize and network and, thus, impedes their social and economic mobility. He said the root of discrimination in contact is an age-old stigma—a pervasive anti-African American bias that goes back to slavery and that finds one expression today in the disproportionate number of African Americans in the prison system. The stigma is so pervasive, he argued, that many African Americans have actually come to accept some of the negative images (such as that good educational performance is somehow not authentically African American) and have begun to live out those negative images.

Loury defined integration neither as an educational goal nor as a legal contract but as the "embrace of intimate social intercourse across racial lines." Only that type of integration, he concluded, could overcome the historical stigma. ■

Plots and Curves

What Mexican Sex Workers Can Teach Economists About Preventing HIV

SINCE THE HUMAN IMMUNODEFICIENCY virus (HIV) was first discovered in the early 1980s, 23 million people have died from it worldwide. Every day, nearly 20,000 people become infected. One of the major global sources of infection, in addition to intravenous drug use, is having unprotected sex with a sex worker.

Although using condoms can protect against HIV infection, condoms work only if they are used consistently. In Armenia, where HIV is rampant, only 10 percent of sex workers reported using condoms consistently. It is therefore not surprising that interventions worldwide have homed in on educating sex workers about the risk of HIV and the importance of using condoms.

Compared with Armenia, Mexico is a success story. Thanks to a massive public education campaign aimed at sex workers and their clients since the late 1980s, HIV prevalence among sex workers in Mexico is very low—less than 1 percent—and condom use is very high—around 80 percent. Despite this success, the government is still concerned about a potential outbreak and is considering a new education campaign targeted at sex workers.

Mexico City prostitutes march in a candlelight procession in memory of their fellow workers who have died from the AIDS virus. The annual ceremony, held around the "day of the dead" festivities, tries to promote safe sex and an awareness of the spread of HIV in Mexico.



AP/WIDE WORLD PHOTOS/ELIZABETH DALZIEL

But would an additional educational campaign directed at the same population make much of an improvement? This is the question addressed in a talk at RAND by Paul Gertler, professor of economics and public policy at the University of California, Berkeley.

Sex on Demand

Commercial sex is a business, one that has a supply side (sex workers) and a demand side (clients). As Gertler notes, most interventions focus on the supply side—educating sex workers, making it easier for them to get inexpensive condoms, increasing their negotiating skills, and creating safe and supportive work environments.

Gertler agrees that such a focus is effective (and necessary), but he argues that all the attention on the supply side ignores the demand side of the equation. Clients sometimes request sex without condoms and are willing to pay more for it. If they offer to pay enough, will sex workers—including the ones who know about the importance of using condoms and who would otherwise want to use them—decide that the risk of getting HIV is low enough to be worth taking?

To answer this question, Gertler surveyed more than a thousand sex workers in two Mexican states—Morelos, one of the country's poorer states, and Michoacan, one of the wealthier ones—about their last three or four transactions. In earlier focus groups with sex workers and their clients, he found that the commercial sex business operates pretty much how people think it operates: The client and sex worker bargain with each other, with the client trying to determine price and services and the sex worker trying to gauge willingness to pay and service preferences. Most important, at least in Mexico, such negotiations routinely include a discussion of condom use.

In the survey, sex workers confirmed that condom use is widespread in Mexico. Eighty-three percent said they used condoms in all their transactions, while an

additional 12 percent said they used condoms some of the time. But of most interest is *who* suggested using or not using condoms.

When condoms were used, Gertler explained, 95 percent of the time it was because sex workers had suggested it. When condoms were *not* used, 68 percent of the time it was because clients had requested it. There appears to be little question that demand-side pressures contribute to the small but continuing problem of not using condoms.

If the Price Is Right

When sex workers agree to have unprotected sex upon request, Gertler found, they do so because the price for doing so is right, meaning that clients are willing to pay a premium. How high a premium? Based on his analysis, sex workers received an average of 23 percent more for unprotected sex (and up to 46 percent more if the workers were judged to be especially attractive).

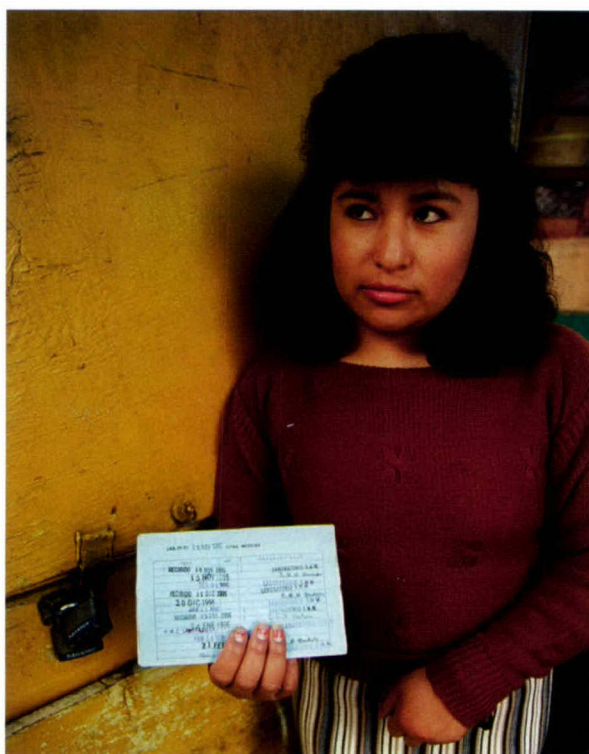
The market works both ways. If *clients* suggest using condoms, then the clients pay 8 percent *more* for protected sex. And if *sex workers* are the ones who request sex without a condom, then they have to give clients a 20 percent discount. But unprotected sex usually comes at the client's request.

Reducing the small percentage of transactions in Mexico that still don't involve the use of condoms will require a demand-side solution, Gertler argues. One obvious alternative would be to educate clients about the need to use condoms—about the “joy of safe sex”—but trying to identify and educate clients would be difficult and prohibitively expensive.

Gertler proposes a more novel option: Use financial incentives to induce sex workers to use condoms. In other words, exploit the nature of the free market, and compensate sex workers for the money they would otherwise earn by agreeing to have unprotected sex. Fight demand with demand.

To do so, Gertler suggests relying on the “health certificate” that all sex workers must carry in Mexico (and, for that matter, in most of Latin America). In these countries, sex workers must periodically pay to be tested for HIV and sexually communicable diseases and to receive a certificate proving they are “clean.”

Such testing is expensive. But if the costs of the test are set precisely to match the premium that sex workers earn for unprotected sex—and if the sex workers who test clean can have their costs ultimately reimbursed—then the sex workers may be more likely to choose *not* to



AP/WIDE WORLD PHOTOS/LENNY IGNEZI

Ilda, a young prostitute working the “red light” district of Tijuana, Mexico, displays her health record book, which she is required to carry by law.

have sex without a condom. The Mexican government is considering a pilot test of such a program.

Education and Earnings

For countries like Mexico—where a massive public education program has been in place for years, where sex workers understand the dangers of HIV and the need for condom use, and where the prevalence of HIV remains low—the implications of the findings are clear: Focusing on the demand side of the equation makes sense.

But the work has broader implications for all countries. Education targeted at sex workers is certainly necessary, especially in countries like Armenia that have a high prevalence of HIV and low condom use. But education has its limits—“diminishing returns,” as Gertler contends. Demand-side pressure from clients will ensure that there are always cases where condoms aren't used, despite excellent educational efforts. Therefore, every country should use complementary interventions that focus both on supply and on demand.

On the supply side, countries need to educate sex workers, increase their access to inexpensive condoms, and empower them. On the demand side, countries need to try a number of options, such as providing financial incentives to induce sex workers to use condoms all the time. ■

Localize the Remedy

Community Efforts Can Ameliorate Poor Quality of Care

By Elizabeth A. McGlynn

Elizabeth McGlynn is associate director of RAND Health and director of the Center for Research on Quality in Health Care, a RAND Health program.

More than a year ago, we at the RAND Corporation reported that adults in the United States receive about 55 percent of the health care recommended for the leading causes of death and disability. To address this problem, we have called for the widespread adoption of electronic clinical information systems to improve care delivery and to increase accountability in the health system nationwide.

Because health care is delivered locally, the improvement strategies must be tailored to community needs. To begin, communities must develop an understanding about how well care is delivered in each community and about what solutions are possible to the problems that are identified.

Thanks to a grant from The Robert Wood Johnson Foundation, we were able to examine the quality of care delivered over a two-year period in a dozen randomly selected U.S. metropolitan areas, each with populations above 200,000 (see Figure 1). No metropolitan area consistently had the best or worst performance in every category of care. However, the quality of care varied substantially by type of medical condition.

Quality of care varied widely by type of care, even within communities.

Most people in America do not believe that quality of care is a problem for them. Many think that the care delivered by their doctor, or in their community, is better than the care delivered in the nation as a whole. Our latest study found that such an assumption could be dangerous.

Highlights of the study are as follows:

- The overall performance was strikingly similar in all 12 communities studied. Overall quality ranged from 59 percent of recommended care delivered in Seattle to 51 percent in Little Rock and Orange County (see Figure 2). We found the same basic level of performance for chronic, acute, and preventive care.
- Quality of care varied widely by type of care, even within communities. Figure 3 shows that Little Rock had the highest score in preventing chronic disease (80 percent of recommended care delivered) but the lowest score in substance abuse counseling (32 percent delivered). As for chronic conditions, Figure 4 shows that Newark scored

Figure 1—RAND Examined Quality of Care in 12 U.S. Metropolitan Areas



among the highest in treating hypertension (69 percent of recommended care delivered) but the lowest in treating depression (47 percent delivered). Likewise, Figure 5 shows that Cleveland and Syracuse tied for the best in treating cardiac conditions (70 percent of recommended care delivered) but were also among the worst in treating diabetes (44 percent delivered).

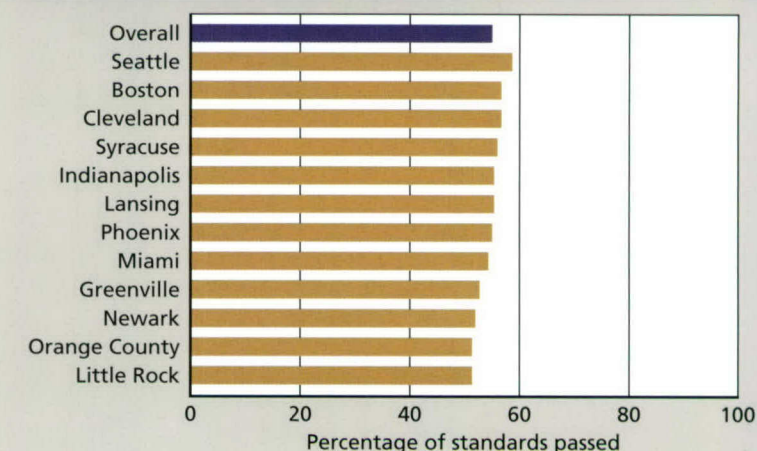
- Regarding preventive care in general, Figure 6 shows that all communities did a better job of immunizing patients and of preventing chronic disease through screening tests (such as measuring blood pressure) than they did delivering other types of preventive care (such as substance abuse counseling or prevention of sexually transmitted diseases and HIV).
- For an array of chronic conditions (from hypertension and cardiac conditions to depression, pulmonary problems, and diabetes), the quality of care once again varied both across conditions and across communities (see Figure 7).
- Quality of care for hypertension was consistently among the best for chronic conditions. Residents of Cleveland and Newark received 69 percent of the recommended care for hypertension, with residents of Phoenix, Seattle, and Syracuse close behind at 68 percent.
- Quality of care for depression and for pulmonary problems (asthma and chronic obstructive pulmonary disease) was lower than for hypertension and cardiac conditions. In 9 of the 12 communities, quality of care for diabetes was the lowest of all.

This kind of information, specific to local markets, is essential for setting priorities about how to allocate public and private resources most effectively. The information also brings the problems close enough to home to motivate action. Equipped with this kind of information, communities can target their resources toward areas such as immunizations, screenings for chronic diseases, educational prevention of chronic diseases, employer-based efforts, collaborations among universities and hospitals, or public safety initiatives.

Underuse and Overuse

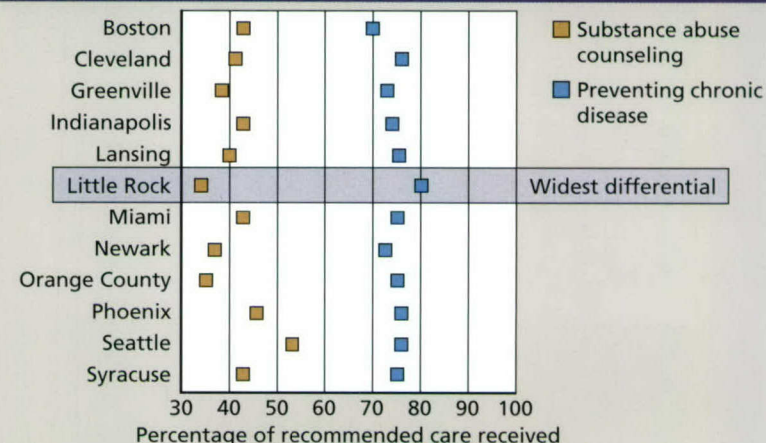
Nationwide, we found that underuse of care was a greater problem than overuse. Patients failed to receive recommended care about 46 percent of the time, compared with only 11 percent of the time when patients

Figure 2—Quality of Care Was Similar in All the Communities Studied



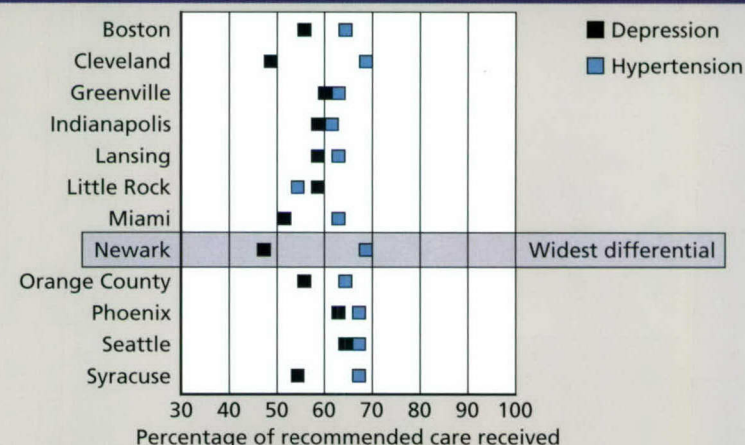
SOURCE: "Profiling the Quality of Care in Twelve Communities," 2004.

Figure 3—Quality of Preventive Care Varied Within and Across Communities, by Condition



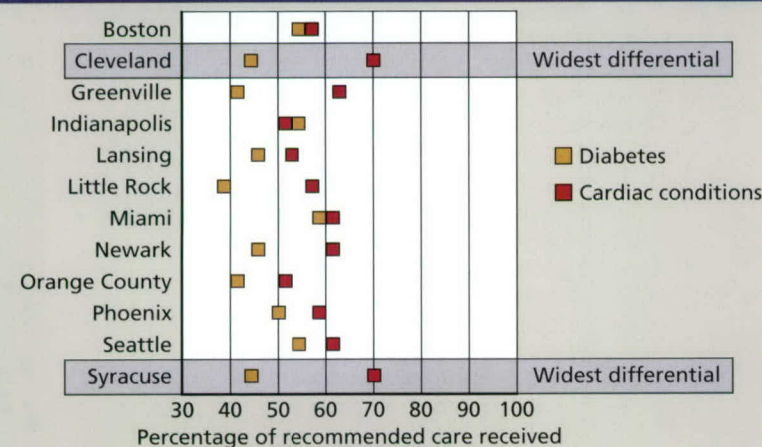
SOURCE: "Profiling the Quality of Care in Twelve Communities," 2004.

Figure 4—Quality of Care for Depression and Hypertension Varied Within and Across Communities



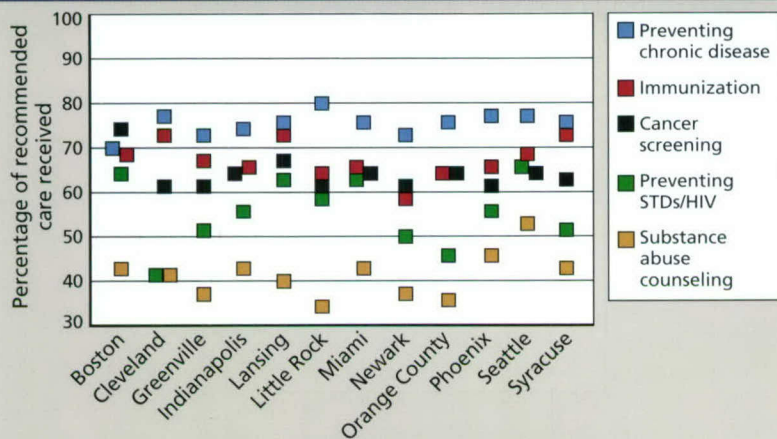
SOURCE: "Profiling the Quality of Care in Twelve Communities," 2004.

Figure 5—Quality of Care for Diabetes and Cardiac Conditions Varied Within and Across Communities



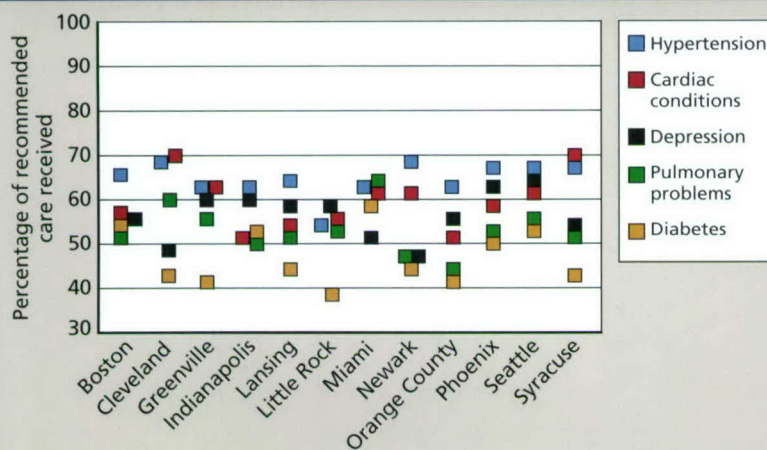
SOURCE: "Profiling the Quality of Care in Twelve Communities," 2004.

Figure 6—In General, Communities Delivered Some Types of Preventive Care Better Than Others



SOURCE: "Profiling the Quality of Care in Twelve Communities," 2004.
NOTES: STD = sexually transmitted disease. HIV = human immunodeficiency virus.

Figure 7—In General, Communities Delivered Care for Some Types of Chronic Conditions Better Than Others



SOURCE: "Profiling the Quality of Care in Twelve Communities," 2004.

did receive care that was *not* recommended and was potentially harmful (see Figure 8). The quality deficits pose serious threats to the health of the American public and translate into thousands of preventable complications and deaths per year. For example:

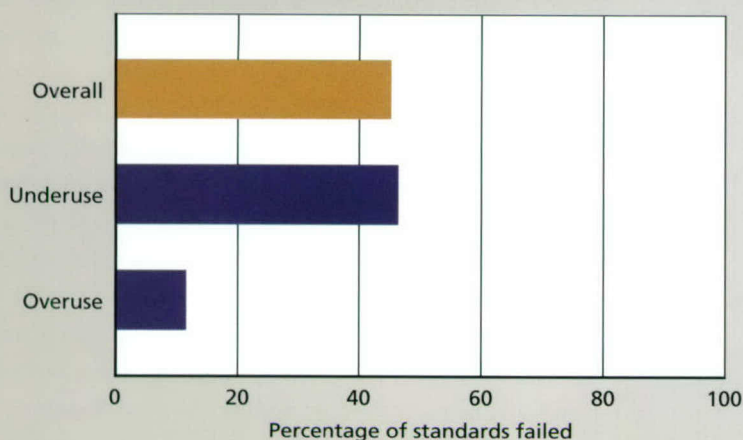
- Only 24 percent of diabetics had their average blood sugar levels measured regularly to assess whether treatment was effective. Poor control of blood sugar can lead to kidney failure, blindness, and amputation of limbs.
- Patients with hypertension received less than 65 percent of recommended care, and nearly 60 percent of the patients did not have their blood pressure well controlled. Poor blood pressure control is associated with increased risk for heart disease, stroke, and death. In fact, poor blood pressure control contributes to more than 68,000 preventable deaths annually.
- Only 45 percent of heart attack patients received beta blockers, and only 61 percent received aspirin—medications that could reduce the risk of death by more than 20 percent, contributing to an estimated 37,000 preventable deaths per year.
- Only 64 percent of elderly Americans were vaccinated against pneumonia. Nearly 10,000 deaths from pneumonia could be prevented annually through proper vaccinations.
- Just 38 percent of adults were screened for colorectal cancer. Routine tests and appropriate follow-up could prevent 9,600 deaths a year.

Computers and Communities

The first step in improving care is to ensure the routine availability of information on health care performance. Computerized information systems, such as those already in use by the U.S. Veterans Administration, automate the entry and retrieval of key data for this purpose. The information systems support clinical decisionmaking, quality measurement, and reporting. Installing these kinds of systems at health care facilities nationwide will require a major investment in health information systems.

Information is essential, but it is not enough. Once the information is available, teams of health professionals—doctors, nurses, and health educators—need to use the information collaboratively and quickly to identify the best course of care for each patient. In many cases, the teams also need to be able to explain the additional information—and the treat-

Figure 8—Underuse of Care Was a Greater Problem Than Overuse



SOURCE: "The Quality of Health Care Delivered to Adults in the United States," 2003.

ment options—clearly to patients so that they can choose the treatments that are right for them.

On a larger scale, communities need to evaluate their local quality of care and to decide which local quality initiatives to pursue. Regional health plans, medical groups, and public health clinics often share patients. Therefore, those who work within each component of community care have an incentive to examine where the improvements need to be made to enhance the overall performance.

As part of this local evaluation, communities can also choose to come together and to tackle some problems at the regional or state level. For example, 43 medical groups and hospitals in Minnesota are collaborating to accelerate the adoption of best clinical practices, resulting in uniform practice guidelines for all six Minnesota health plans. In New York State, the collective monitoring and public reporting of mortality rates after coronary artery bypass graft surgery have successfully contributed to a decline in operative mortality.

Community-based solutions do not lie entirely within the health care system. Large employers could also provide leadership. In one community, the county health department developed an outreach program for retired public employees, inviting them to return to their former places of work for influenza and pneumococcal vaccines.

Public health departments could work jointly with local health insurers to offer additional services, such as community-based smoking cessation programs that could target all residents, regardless of insurance

status. As yet another option, public and community health centers could offer screening and counseling programs for HIV, tuberculosis, and other infectious diseases.

Community-based education and outreach efforts could, in turn, activate patients to demand improved quality across many dimensions of care and to identify their own requirements of care. For example, several community-based organizations have developed guidelines to help patients assess whether they are receiving the care they need for selected health problems.

Perhaps most important, patients must take responsibility for their own care. They should consult with trusted sources to learn what kinds of preventive care or curative treatment they need. Patients should seek information from their physicians, from health care agencies that specialize in their personal conditions or diseases (such as the American Diabetes Association), and from organizations that set the standards for provision of preventive care (such as the U.S. Preventive Services Task Force).

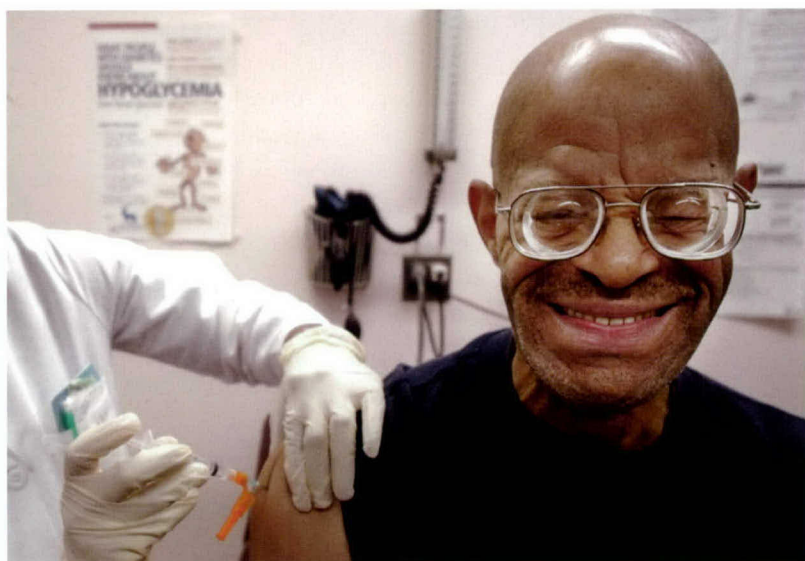
Patients could then work with their physicians to ensure that they receive recommended care. Patients should not assume that their physicians will remember all that needs to be done. Patients can help their physicians provide good care by being active advocates for it.

Community-based solutions do not lie entirely within the health care system.



Cecile Crowder, 77, works out at the Olympic Athletic Club in Seattle, Wash. She was one of 74,171 women aged 50 to 79 who participated in a government-funded study that found that women who had engaged in the equivalent of about 1.5 to 2.5 hours a week of moderate-intensity exercise had an 18 percent reduced risk of breast cancer.

AP/WIDE WORLD PHOTOS/JIM BRYANT



AP/WIDE WORLD PHOTOS/MIKE DERER

Edward Brown, 57, a patient at University Hospital in Newark, N.J., winces as he receives a flu vaccine. New Jersey health officials have urged people to make the influenza vaccination a yearly habit.

Data and Beliefs

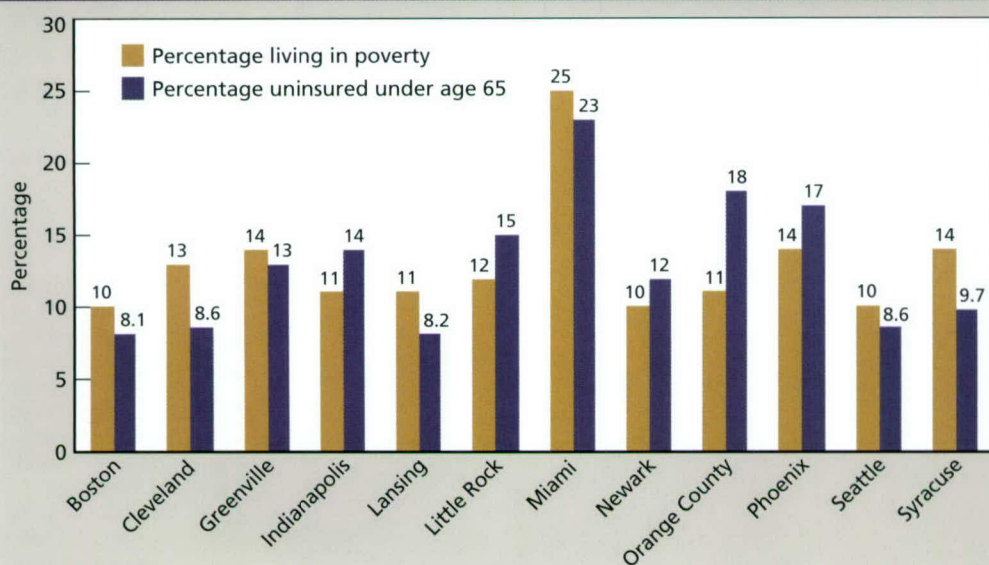
Because quality in most areas of care was uniformly poor, we could not draw firm conclusions about the effects on quality of unique local characteristics, such as income levels, poverty rates, insurance coverage, hospital capacities, or the penetration of health maintenance organizations into the regional health markets. These characteristics might not be decisive factors anyway in determining quality once patients obtain access to care. Previous RAND studies have found no relationship between variations in the rates of medical services used and the clinical appropriateness of those services.

Nevertheless, the design of local quality improvement programs should take into account the needs of the local population. In Miami, where 25 percent of the people live in poverty and where 23 percent of the people under age 65 are uninsured, the quality improvement programs will need to depend on public funding and to have a large outreach component. Conversely, programs in the Boston area, with only 10 percent living in poverty and only 8 percent uninsured, could rely more on the private health care system (see Figure 9).

Some people might be surprised to learn from our community study that performance was not better in areas with outstanding medical institutions compared with other areas. However, we examined the *average* quality of care delivered to adults within an entire metropolitan area, rather than the unique quality of care received at a specific facility, within a specific health care system, or from a specific doctor. Perceptions of quality in some cities may be driven by beliefs about the performance of benchmark doctors and institutions, whereas the experience of a broad cross-section of patients in those communities may be more variable.

Those who believe that there is no room for improvement in the quality of care delivered within their health care markets should test those beliefs. Objective assessments of quality are essential for identifying priorities for action, galvanizing support for such interventions, and allowing the community at large to benefit from any assessed effectiveness of the interventions. ■

Figure 9—Local Quality Improvement Efforts Should Consider the Needs of the Local Populations



SOURCE: "Profiling the Quality of Care in Twelve Communities," 2004.

Related Reading

The First National Report Card on Quality of Health Care in America, RAND/RB-9053, 2004, 4 pp. Available at www.rand.org/publications/RB/RB9053/.

"Profiling the Quality of Care in Twelve Communities: Results from the Community Quality Index Study," *Health Affairs*, Vol. 23, No. 3, May/June 2004, pp. 247–256, Eve A. Kerr, Elizabeth A. McGlynn, John Adams, Joan Keesey, Steven M. Asch.

"The Quality of Health Care Delivered to Adults in the United States," *New England Journal of Medicine*, Vol. 348, No. 26, June 26, 2003, pp. 2635–2645, Elizabeth A. McGlynn, Steven M. Asch, John Adams, Joan Keesey, Jennifer Hicks, Alison DeCristofaro, Eve A. Kerr.

Medical Care, Medications Found Lacking Among Vulnerable Elderly

Nearly simultaneous with its reports on the poor quality of care nationwide, RAND released two additional reports on the poor quality of care received by America's vulnerable elders. The two reports define "vulnerable elders" as people 65 and older with health problems that make them vulnerable to losing their independence or even to dying. Roughly one-third of U.S. senior citizens fall into this vulnerable category.

Quality of care for this population is deficient in several ways, according to the reports. Vulnerable elders

- receive recommended care for their age-related conditions only 31 percent of the time
- receive recommended care for other medical conditions only 52 percent of the time
- receive recommended medications for all conditions only 50 percent of the time.

The first report, published in the Nov. 4 edition of the *Annals of Internal Medicine*, concluded that "care for geriatric conditions is much less optimal than care for general medical conditions." Geriatric conditions include dementia, mobility disorders, and urinary incontinence.

The study, which evaluated the medical conditions accounting for the majority of all medical care that older patients receive, found that care was inadequate for most conditions. There was also a wide variation in quality by condition, ranging from 9 percent of recommended care delivered for end-of-life care to 82 percent for stroke care (see figure). End-of-life care deals largely with the documentation of advance directives indicating treatment preferences and the incorporation of those preferences into the care delivered during the final days of life.

Many of the skills needed to carry out the processes of care for age-related conditions "may not be as well taught in medical school and primary care residencies" as other, more technical skills, according to the study. It concluded that efforts to improve care for vulnerable elders should "focus on the geriatric conditions that profoundly influence functional status."

The second report, published six months later in the May 4 edition of the *Annals of Internal Medicine*, examined the quality of pharmacologic care for vulnerable elders at two U.S. managed care organizations. One is located in the northeast and one in the southwest.

The study found that physicians avoided prescribing inappropriate medications 97 percent of

the time. However, physicians prescribed necessary medications only 50 percent of the time, provided patients with proper education and documentation about the medications 81 percent of the time, and properly monitored medicated patients just 64 percent of the time.

Health policy efforts have focused on finding ways to pay for the medications needed by older patients but not on ways to improve medication management. "Improvement in access to medications without quality assurance may result in a mere increase in care without change in outcomes," the study warned.

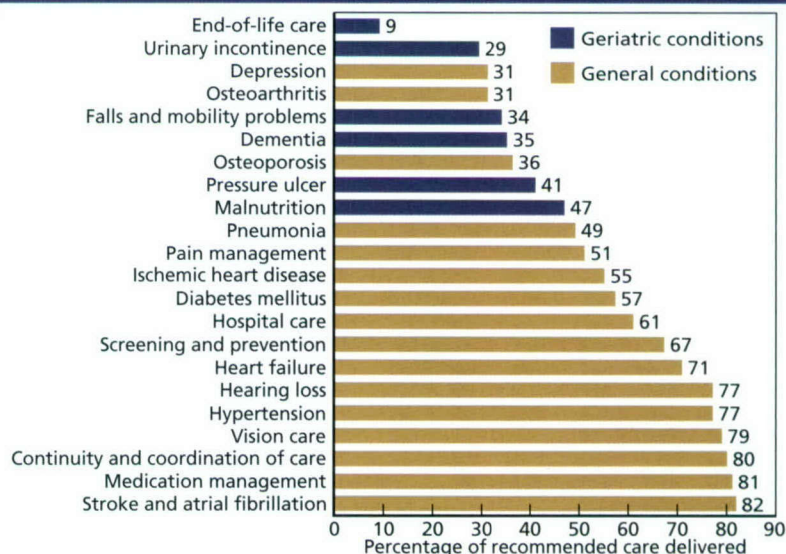
Related Reading

The Quality of Health Care Received by Older Adults, RAND/RB-9051, 2004, 4 pp. Available at www.rand.org/publications/RB/RB9051/.

"The Quality of Medical Care Provided to Vulnerable Community-Dwelling Older Patients," *Annals of Internal Medicine*, Vol. 139, No. 9, Nov. 4, 2003, pp. 740-747, Neil S. Wenger, David H. Solomon, Carol P. Roth, Catherine H. MacLean, Debra Saliba, Caren J. Kamberg, Laurence Z. Rubenstein, Roy T. Young, Elizabeth M. Sloss, Rachel Louie, John Adams, John T. Chang, Patricia J. Venus, John F. Schnelle, Paul G. Shekelle.

"The Quality of Pharmacologic Care for Vulnerable Older Patients," *Annals of Internal Medicine*, Vol. 140, No. 9, May 4, 2004, pp. 714-722, Takahiro Higashi, Paul G. Shekelle, David H. Solomon, Eric L. Knight, Carol Roth, John T. Chang, Caren J. Kamberg, Catherine H. MacLean, Roy T. Young, John Adams, David B. Reuben, Jerry Avorn, Neil S. Wenger.

For Vulnerable Elders, Geriatric Care Is of Worse Quality Than General Medical Care



SOURCE: "The Quality of Medical Care Provided to Vulnerable Community-Dwelling Older Patients," 2003.

Selective Service

Bring Back the Draft in Iraq, Not Here

By James T. Quinlivan

James Quinlivan is a military analyst and senior mathematician at RAND.

The longer that U.S. troops remain heavily deployed in Iraq, stretching the limits of the all-volunteer force, the stronger (or at least louder) become the voices of those who want to reinstitute the U.S. military draft. The time has indeed come to bring back the draft, but not in the United States.

Three reasonable arguments have been made against reinstituting a U.S. draft to fill the need for troops in Iraq and Afghanistan:

1. The wars in Iraq and Afghanistan do not constitute a national emergency at the level that should reverse the U.S. commitment to an all-volunteer force. The United States is rich enough to pay enough to attract the required numbers of people to the military.

2. There is no feasible way to impose universal service on a large fraction of the more than two million young men (plus two million young women) who turn 18 every year in the United States, rendering conscription of some small fraction inherently unfair.

3. In the short period of a conscript's service, he or she cannot be trained to the level of skill required for today's professional military.

However true these statements may be for the United States, they are false for Iraq. In fact, the situation is the complete opposite for Iraq:

1. Iraq faces a national emergency that calls into question the survival of the Iraqi state. Limited to its own resources, Iraq is no longer a rich country that can afford to buy its way out of problems.

2. The Iraqi military, police, emergency, and public services can use a large fraction of the roughly 300,000 Iraqi males who turn 18 each year.

3. As in previous wars, counterinsurgencies, and difficult situations, Iraqi conscripts would qualify to fill the many military and civilian jobs that require courage, physical effort, and little training.

The interim Iraqi government is now considering calling back elements of the former Iraqi army. The government is also upgrading the skills of the volunteer Iraqi forces that were willing to enlist in the forces formed by the Coalition Provisional Authority. However, the need for manpower continues to grow. As the regular Iraqi forces improve their own performance, they also increase their ability to add lesser-skilled auxiliaries for more routine tasks. Sooner or later, either the interim government or its post-election successor will have to consider reintroducing the conscription that was a nearly universal feature of Iraqi life for decades before the U.S. and allied occupation.

Worth the Risk

It is now clear that Iraq faces an insurgency that genuinely threatens the Iraqi state. The interim government faces Iraqi insurgents who have some popular support and a continuing ability to thwart international reconstruction efforts.

To counter the insurgent threat, the new government has proclaimed that its most important duty is to provide security for the Iraqi people. The government must also demonstrate that it is the ultimate guarantor of the people's rights and welfare.

In return, the ultimate test of the legitimacy of any Iraqi state is whether its citizens will defend it with their own lives. Providing security is a manpower-

hungry activity that can require many more people than are required by the actual battles with insurgents. Reintroducing conscription might alienate some factions or regions within Iraq, perhaps sparking defiance, but taking the political risk might be the only way to ensure the political integrity of the state.

Security requires the protection of the people as they move through their daily lives; it requires checkpoints to screen cars for bombs; and it requires guards who control access to markets, schools, neighborhoods, and the children who move between them. For the ordinary citizen, a sense of security must include protection from common crime as well as from politically motivated terrorism.

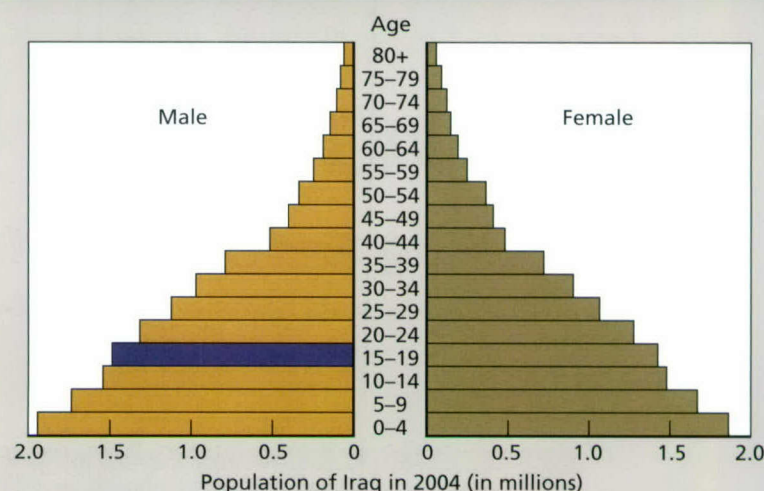
The first requirement is simply to add more guards and checkpoints. That is a big part of the solution. Highly visible security halts some attacks, deters others, removes some opponents, and reassures many citizens. The skills required for these jobs are the simplest of military and police skills. But the benefits of simple skills applied to commonplace tasks and universally accepted services should not be underestimated: Improvised explosive devices cannot be hidden in trash near roads if members of a labor force collect the trash along the roadside every morning.

At a more complicated level, the economic life of the country requires the protection of big industries and their associated distribution networks, most notably the oil industry and its web of pipelines. The economy also requires the protection of the electrical power plants and their network of high-voltage distribution lines. Even water and sewage systems have been targets and require renovation, repair, and protection.

To secure the utility infrastructure, the balance of effort might be shifted away from capital, or equipment, and toward labor. High-technology solutions that depend on special-purpose tools, foreign technicians, and high-priced security contractors can be too vulnerable. In a situation in which the invulnerability of large new facilities cannot be guaranteed, designing multiple smaller facilities that are more easily replaced or repaired with indigenous work crews kept on perpetual alert can be a more resilient approach to maintaining the infrastructure.

All of these sorts of options depend on the availability of manpower. The population pyramid of Iraq (see the figure) tells a common story of a population that is growing—and growing younger. The figure, which breaks the population into five-year age bands,

Roughly 300,000 Men Turn 18 in Iraq Every Year



SOURCE: U.S. Census Bureau, *International Data Base*, "Population Pyramids for Iraq," 2004. See <http://www.census.gov/ipc/www/idbnew.html>.

shows that roughly 300,000 males turn 18 every year in Iraq. Under Saddam Hussein's regime, 18 was the conscription age for most Iraqis who could not wangle a deferment, and a high proportion eventually served in the regime's many conflicts.

These young men are certainly capable of learning the simple skills needed to help bring security to Iraq. Not much training would be required for many laboring jobs, and other military and police skills would be within the teaching ability of the improved Iraqi forces. More complicated skills associated with conscript gendarmerie, with constabulary forces, or with reserve police might be taught by many of our NATO allies that have such forces, including the British, the Dutch, the French, and the Spanish.

As with conscripts everywhere, such service would be not only a test of their mettle but possibly also a physical outlet for their nationalism. Moreover, every conscript productively employed in the service of his country is not readily available to the insurgent militias or to the violent crowds of unemployed youths that can erupt around any street incident. Absolute loyalty to the regime would not be required for the conscripts to contribute to an improved security situation.

As the ultimate test of a new nation, there is no substitute for its own people taking on the burdens of its defense. The Iraqi conflict has moved into a stage in which it is no longer a conflict for the Americans to win. Only the Iraqis themselves can win this counter-insurgency. ■

Foot in Mouth

Finding Better Uses for Policy Research

**By Jonathan Grant, Mirjam van het Loo,
Sally Ann Law, Silvia Anton,
and Jonathan Cave**

Jonathan Grant and Silvia Anton are analysts in the Cambridge office of RAND Europe. Mirjam van het Loo and Jonathan Cave are analysts in the Leiden office of RAND Europe. Sally Ann Law is a psychology consultant to RAND Europe.

Three years ago, foot-and-mouth disease ravaged the United Kingdom, precipitating the slaughter of more than six million animals, the decimation of livestock farming, and a steep decline in tourism. The epidemic is estimated to have cost the country as much as \$6 billion.

Managing the crisis placed heavy demands on research to discern the causes and likely progress of the epidemic, the relative efficacy and costs of slaughter or vaccination policies, the probable public responses, and the resulting distribution of economic consequences. In short, the epidemic was a very good example both of how governments depend on research in times of crisis and of why governments should plan for future research needs over the long term, if only to be prepared for these kinds of crises.

In cases such as foot-and-mouth disease, crisis management also depends on the informed reactions of others (farmers, supermarkets, slaughterhouses, consumers, and trade partners). Therefore, such situations cry out for innovative ways to communicate the results of scientific research and to explore the implications collectively.

The challenges of managing, using, and communicating research pertain to all areas of policymaking. In June 2002, the United Kingdom's National Audit Office (NAO) asked RAND Europe to conduct a "value-for-money" study of how government departments procure research and how well that research is used to develop policies and to improve service delivery. Following the successful completion of this work, last year the NAO invited RAND Europe to become one of its strategic partners and to support its work through various projects (see sidebar).

Our initial report for the NAO, *Getting the Evidence*, concluded that while UK departments have been modernizing research procurement, more could be done to consolidate and to exploit the improvements. In general, we concluded, the departments needed

- more-strategic management and use of research
- more-proactive and more-innovative dissemination of research findings
- more sharing of research results across departments and over time.

These guidelines could help departments increase the value of research expenditures, not just in Britain but around the world. Typically, governments in developed countries spend between a half percent and a full percent of national gross domestic product (GDP) on research.

The European Union has set a target for each government to spend a full percent of national GDP on research by 2010, and so the importance of obtaining maximum value for research will only grow. In the sections below, we cite examples of some of the best practices that we have already identified in following our three overall guidelines.

More-Strategic Focus

Research goals help determine how research is commissioned and evaluated. All government departments in Britain are required to publish their research goals and strategies. However, the departments could generally do a better job of distinguishing between short-term and long-term goals. With respect to long-term goals in particular, departments should strive to balance long-term demand (the emergent research agenda) with long-term supply (research capacity and capabilities).

For help in clarifying long-term goals and developing and maintaining long-term capabilities, departments should regularly consult with research users and providers. Users include policymakers, nongovernmental organizations, private companies, the media, other researchers, and concerned segments of the general public. Providers include not just existing suppliers inside or outside government but potential suppliers as well.

One example of good practice that we identified for clarifying long-term goals is the “horizon scanning” program of the UK Department for Environment, Food, and Rural Affairs. The program identifies emerging scientific opportunities and risks, such as an increasing prevalence of tuberculosis in cattle, and explores novel ways of framing long-term research problems. The department identified new priorities through an Internet-based consultation that elicited 282 research ideas from more than 400 individuals working in research, government, industry, and non-profit organizations.

Another example of good practice in nurturing long-term capabilities is a fellowship program funded jointly by the UK Office of the Deputy Prime Minister and the UK Economic and Social Research Council. The program is designed explicitly to build long-term research capacity in the areas of technical excellence and strategic thinking.

If research goals are clearly defined, then research questions can be clearly posed and research contracts can be prudently awarded. The first step in awarding the contracts is to ensure coherence between the competitive mechanisms and the intended uses of the research.

Research specifications can be direct (based on detailed requirements) or indirect (based on a general call for proposals on a broad topic, such as poverty elimination). Competition among bidders can be open (advertised to all interested parties) or closed (limited

The European Union has set a target for each government to spend a full percent of national GDP on research by 2010.

by invitation). Finally, evaluations of bids can be formal (relying on predetermined objective criteria for evaluating bids) or informal (relying on professional judgment and expertise).

Two examples illustrate the range of good practices we found. The UK Office of the Deputy Prime Minister regularly needs to answer specific questions about housing, homelessness, and urban issues, necessitating frequent competitions. To keep the process fairly open while managing costs, the office invites all bidders to submit preliminary letters of interest. Based on the letters, the office narrows down each competition to 3–6 contenders for a further, more-intensive, more-expensive, and more-objective review of detailed proposals.

In contrast, the policy mandate of the UK Department for International Development requires more general knowledge about social science. Therefore, competitions are indirect (broad in scope), open (to encourage new ideas), and informal (without prespecified research questions or methodologies). Technical experts (academics) judge the proposals. Research users (internal policy staff) review the relevance of proposals to departmental goals. This combination of technical and relevance review helps to guarantee the utility of the research and its translation into practice.

Quality assurance should be an integral part of research. Departments should go beyond the standard evaluation protocols of identifying appropriate statistical measures of quality, which do not necessarily ensure the validity of the research. Beyond the use of standard quantitative measures, departments should seek qualitative guidance from research users throughout the duration of the research.

Qualitative guidance could be gleaned from user surveys and from peer reviews. Peer reviewers could also synthesize the quantitative data with the qualitative surveys. The early involvement of potential users of different types of research will greatly increase the likelihood and value of its ultimate use.

How RAND Europe Acts as a Partner in Search of "Value for Money"

The National Audit Office (NAO) is the UK's supreme audit institution. Like the U.S. General Accounting Office, the NAO is responsible for certifying the accounts of all government departments and for reporting to Parliament on the economy, efficiency, and effectiveness with which departments and other public bodies have used their resources. In 2003, the NAO invited RAND Europe to become a strategic partner, undertaking full "value-for-money" studies on its behalf and supporting the NAO in its own studies of this nature. To date, RAND Europe has been involved in the following NAO studies:

- *Tax collections.* The study is analyzing the feasibility of developing mathematical models to calculate likely tax revenues and costs associated with alternative taxation methods.
- *International tax returns.* The study is comparing the filing of corporate and income taxes in five countries (Germany, the Netherlands, Sweden, the United Kingdom, and the United States).
- *Joint targets.* The study is developing and applying ways to evaluate joint working arrangements among departments with common policy targets (e.g., trade, poverty, conflict, and development).
- *Benefit regulations.* The study is charting the apparently increasing and unnecessary complexity of public entitlement programs and examining ways to manage or to reduce it.
- *Diversity in public services.* The study is assessing how departments deliver services to diverse populations—and the barriers and conduits to reaching them.
- *Regional development.* The study is examining the overlap between the target populations served by regional development agencies and those served by other departments.
- *Defense.* The study examined the prioritization and management of science and technology research within the UK Ministry of Defence.
- *Information technology (IT).* The study critiqued the procurement and management of large IT research projects commissioned for the purpose of improving service delivery.
- *Better public services.* The study compared the approaches used by departments in Germany, the Netherlands, and the United States to convert their resources into improved services.

We found an exemplary approach already put into practice by the Canadian Health Services Research Foundation. Called "Linkage and Exchange," the program stipulates the intimate involvement of potential research users in each stage of the research process: setting priorities, evaluating applications, funding projects, conducting research, and communicating results.

In setting priorities, the Canadian foundation hosts nationwide workshops every three years so that policymakers can establish research priorities for the ensuing five years. In evaluating applications, the foundation uses peer review panels, with equal representation of researchers and policymakers, to assess scientific quality and policy relevance. In funding projects, the foundation funds only half of the research costs, requiring joint sponsorship from other partners. In conducting research, the foundation requires each research team to include at least one policymaker actively engaged in the area under study. Finally, in communicating results, the foundation supports the dissemination of research evidence that pertains to a topic identified by the policymakers.

More and Better Dissemination

Policymakers and other research users often complained to us about the poor communication of research results. In fact, there was a widely perceived gap between what researchers produce and what policymakers need. We identified several reasons for the perceived gap and have begun to suggest ways to close it (see the table).

On the whole, departments are more likely to carry out "passive" dissemination of research (upon request), probably because the responsibility for dissemination has traditionally fallen to researchers themselves who, in turn, do not usually consider dissemination to be an intrinsic part of the research. Typically, researchers have no career incentive to disseminate their findings widely to policy audiences. Moreover, researchers often do not have access to relevant policy audiences beyond the departments commissioning the research.

But passive dissemination is insufficient. It breeds inefficiency and inconsistency. It breeds inefficiency because it encourages departments to duplicate the research efforts of one another. It breeds inconsistency because it drives departments to draw on separate pools of validated scientific knowledge, which not only hinders collaboration but could even lead departments to work at cross-purposes. Research managers

should promote targeted and innovative communications strategies for several reasons: to increase the use of solid research, to inform policy, to improve service delivery, and to prevent inefficiency and inconsistency across a nation's entire research agenda.

An exemplary dissemination practice is an Internet-based service established in 1997 by the UK Department for International Development. The aim of the service is to inform the policy debate by presenting information in a user-friendly and accessible manner. A team of in-house development researchers and freelance professional journalists works together to summarize the research reports into short "Research Highlights" that focus on the policy-relevant aspects of the research for a worldwide audience of policymakers and development practitioners.

More Sharing of Results

Following publication of *Getting the Evidence*, the UK Office of Science and Technology asked RAND Europe to run an interdepartmental workshop geared toward the possibility of initiating a network of UK government research managers. Science Minister Lord David Sainsbury opened the workshop. The Prime Minister's Chief Scientific Adviser, Sir David King, closed the workshop. Participants concluded that they could identify and share good practices and help one another enhance the overall effectiveness of managing, commissioning, evaluating, using, and disseminating research.

The managers clearly want to learn from one another but have yet to identify appropriate interdepartmental mechanisms to promote such learning. Further discussions will be necessary to confirm whether a formal network is indeed the best way to achieve the goal.

Meanwhile, the tough questions facing researchers today will prove difficult to answer without closer coordination and clearer communication among researchers and policymakers. Many daunting scientific challenges—from foot-and-mouth disease to mad cow disease to genetically modified organisms—also involve entrenched political and economic interests.

Today's questions often transcend scientific disciplines while opening the door to the dangers of parochialism, populism, and scientism. In these cases, research managers bear a tremendous responsibility to focus, to disseminate, and to share research so that the results can be the most relevant, the most understandable, and therefore the most useful to all. ■

Closing the Gap Between What Researchers Produce and What Policymakers Need

Reasons for the Gap	Possible Ways to Close the Gap
Research results are not easily accessible	<ul style="list-style-type: none"> • Technological solutions (web sites and email newsletters) • Use of communications analysis and science writers • Dissemination strategies mapping products to audiences
Poor understanding of policy questions by researchers	New forms of sustained engagement by researchers in policy consultations with umbrella research groups
Poor communication of research results by researchers	<ul style="list-style-type: none"> • Making translation of research an intrinsic part of the research project cycle • Requiring (and evaluating) a range of high-quality communications products tied to the research results • Adding incentives for future work based on the clear communication of current work
Poor understanding of research results by policymakers	<ul style="list-style-type: none"> • Requiring policies to be based explicitly and demonstrably on relevant knowledge (commissioned and extant) • Careful training of policymakers to ensure the "intelligent customer" role • More bilateral research partnerships between government and scientists
No direct, short-term relevance of research results for policy	<ul style="list-style-type: none"> • Early involvement of potential research users in research projects • Research portfolio management that aligns projects more closely with policy goals
Lack of resources for dissemination activity	<ul style="list-style-type: none"> • Contracts that include funding for dissemination • Contracts that include spin-off options, such as intellectual property rights, on research products • Career incentives, such as the consideration of dissemination activities in researcher salary reviews

Related Reading

Getting the Evidence: Using Research in Policymaking, Report by the Comptroller and Auditor General, HC 586-I, Session 2002–2003: 16 April 2003, London: The Stationery Office, 44 pp. Available on the National Audit Office web site at www.nao.org.uk/publications/nao_reports/02-03/0203586-I.pdf.

An International Review on Governments' Research Procurement Strategies: A Paper in Support of Getting the Evidence: Using Research in Policy Making, Report by the Comptroller and Auditor General, HC 586-II, Session 2002–2003: 16 April 2003, London: The Stationery Office, 47 pp. Available on the National Audit Office web site at www.nao.org.uk/publications/nao_reports/02-03/0203586-II.pdf.



Trials and Tribulations

Expert Witnesses Chart the Future of American Civil Justice

By Robert T. Reville

Robert Reville is director of the RAND Institute for Civil Justice.

For 25 years, the RAND Institute for Civil Justice (ICJ) has filled a critical need. The institute was founded in 1979 in response to two circumstances: (1) the growth of mass tort litigation targeted at the manufacturers of medical devices and pregnancy-related medications, which raised concerns about the availability of liability insurance and led to calls for tort reform; and (2) the absence of any single university or think tank in the United States with a body of knowledge on civil justice policy and operations. Policymakers were facing a mounting crisis in the civil justice system but were operating in a virtual vacuum of reliable information.

The Property-Casualty Insurance Council of the United States put up initial funding for an independent research institute within RAND dedicated to analysis of the civil justice system. Under the leadership of Gus Schubert, the new institute quickly obtained additional funding from plaintiff and defense attorneys, corporations, and trade and professional associations—parties with divergent interests to protect. And thus a unique institution—the only private, nonpartisan legal policy research institute in the United States, with a governing board that included many of the most distinguished leaders in the civil

Contents of This Section:

- 28** The Disappearing Trial and Why We Should Care
By the Honorable Patrick E. Higginbotham
- 31** How Can We Improve the Legal System? Move It into the Information Age
By Roberta Reiff Katz
- 33** What Have We Learned About Compensating Victims of Terrorism?
By Kenneth R. Feinberg
- 35** Patching Holes in the Medical Malpractice System Is No Longer Enough
By David M. Studdert
- 38** Should We Give Up on Medical Product Liability?
By Steven Garber
- 40** The Globalization of Mass Litigation
By Deborah R. Hensler
- 42** Securities Fraud Class Actions: 70 Years Young
By Eric Talley
- 44** A Time for Facts, Not Overblown Anecdotes
By Robert S. Peck

The Hampshire County Courthouse, shown in July 2004, was built in Romney, W.V., in 1922 to replace the original 1833 building. The three-story structure was built in the Neoclassical Revival style that was popular in the early 20th century.

AP/WIDE WORLD PHOTOS/CINDY DAVIS WALKER

**Although we
have managed to
aggravate some of
our financial
supporters, [they]
usually come back
to us because
they know we call
it like it is.**

justice system and that represented competing interests—was born.

In this issue of *RAND Review*, we commemorate our achievements over the past quarter century in helping to make the civil justice system more efficient and more equitable, particularly in compiling essential data on an extraordinarily complex system and in acting as a neutral observer of civil justice trends. Moreover, we take this opportunity to discuss some of the critical civil justice issues facing us in the next decade and, when possible, to propose ways to grapple with these issues.

Pioneering Data

The ICJ has made a key contribution as a provider of empirical data on an overwhelmingly complex system. The “system” is really a collection of countless private disputes resolved in and out of a decentralized court

system spread across the country. Collecting data on such a system is daunting, but the ICJ has risen to the challenge and conducted numerous studies, many of which remain the reference standards to this day. Among these pioneering studies are the following:

- trends in jury verdicts, originally using data from only Cook County, Illinois, and California in the 1980s but ultimately collecting and analyzing data from across the country (with 40 years of trend data from the original jurisdictions)
- the first studies of asbestos litigation, providing empirical data in 1983 on what was then an emerging mass tort—and establishing the ICJ as the preeminent source of information on a civil justice issue that has recently emerged as a focus of considerable controversy once again
- the only comprehensive household survey of accidental injury compensation in the United States, producing breakthroughs in our understanding in 1991 of issues ranging from the costs of accidents in America to the litigiousness of Americans
- the transaction costs of litigation in the United States, providing data on the fraction of system costs received by claimants (a 1986 study that continues to be cited today).

Neutral Observer

The ICJ has made another key contribution by conducting objective research on an institution that is inherently based upon competing positions of advocacy, both in the courtroom and in public policy debates. Strict adherence to RAND’s quality control standards and to the input and oversight of our board have helped to create a body of research that is widely regarded as the only nonpartisan voice in these debates. The following are recent examples:

- our 2002 asbestos study, which was cited in congressional debates by senators of both parties and was also cited in both majority and dissenting opinions of a recent U.S. Supreme Court case
- our 2004 workers’ compensation study, which was cited in California Senate testimony by both labor and business interests. Our recommendations were incorporated into the recent California reform legislation (SB 899). As a result, the new law makes California the first state to base the assignment of disability benefits on empirical evidence about the earnings losses attributable to different impairments.

California Senate
Minority Leader
Jim Brulte,
R-Rancho
Cucamonga, and
State Senate
President Pro Tem
John Burton,
D-San Francisco,
confer during
the discussion
of a workers’
compensation
reform bill at
the state capitol
in Sacramento
on April 16. The
Senate approved
the measure 33-3,
sending the bill
to the governor
for approval.



AP/WIDE WORLD PHOTOS/RICH PEDRONCELLI

We serve policy precisely by maintaining the role of neutral observer. Although we have managed to aggravate some of our financial supporters, who are not always satisfied with the results of our studies, these same supporters usually come back to us because they know we call it like it is. Our objectivity provides a basis from which opposing parties can accommodate one another's views and resolve policy disputes.

Looking to the Future

Today, there is once again considerable concern over the state of civil justice in the United States. In the past 25 years, the civil justice system has grown increasingly complex, in part because of the growing complexity of the world in which we live and hence of the legal system undergirding that world.

We asked a number of our researchers and board members each to comment on an issue he or she feels strongly about, one that is likely to require a policy response in the future. The essays in the following pages reflect both the growing complexity of the world and the continuing responses of the courts:

- An increasing reliance on settlements, together with mediation and arbitration, has led to a decreasing reliance on trials to resolve disputes and an unintended threat to our core notions of justice itself (Judge Patrick Higginbotham).
- Technology has increased the burden placed on the courts by technology-driven evidence (Roberta Katz).
- Globalization has led to the worldwide adoption of American-style mass torts (Deborah Hensler) and to the arrival of catastrophic terrorism in our country, with accompanying challenges to our compensation system (Kenneth Feinberg).
- Widespread concerns about medical malpractice and product safety have greatly complicated the problem of compensating individuals for medical injuries (David Studdert and Steven Garber).
- Recent corporate scandals in the United States have exemplified the growing role of securities fraud litigation (Eric Talley).

In conclusion, given the increasing legal complexity of various aspects of our daily lives, Robert Peck argues that a neutral voice, providing unbiased empirical data to improve civil justice policy, may be needed more than ever. ■

Related Reading

Asbestos Litigation Costs and Compensation: An Interim Report, Stephen J. Carroll, Deborah R. Hensler, Allan F. Abrahamse, Jennifer Gross, Michelle J. White, J. Scott Ashwood, Elizabeth M. Sloss, RAND/DB-397-ICJ, 2002, 96 pp., ISBN 0-8330-3294-1, \$15.00.

Civil Juries in the 1980s: Trends in Jury Trials and Verdicts in California and Cook County, Illinois, Mark A. Peterson, RAND/R-3466-ICJ, 1987, 81 pp., ISBN 0-8330-0790-4, \$15.00.

Compensation for Accidental Injuries in the United States, Deborah R. Hensler, M. Susan Marquis, Allan F. Abrahamse, Sandra H. Berry, Patricia A. Ebener, Elizabeth Lewis, E. Allan Lind, Robert J. MacCoun, Willard G. Manning, Jeannette A. Rogowski, Mary E. Vaiana, RAND/R-3999-HHS/ICJ, 1991, 235 pp., ISBN 0-8330-1109-X, \$20.00.

Costs and Compensation Paid in Tort Litigation, James S. Kakalik, Nicholas M. Pace, RAND/R-3391-ICJ, 1986, 182 pp., ISBN 0-8330-0782-3, \$15.00.

Costs of Asbestos Litigation, James S. Kakalik, Michael G. Shanley, William L.F. Felstiner, Patricia A. Ebener, RAND/R-3042-ICJ, 1983, 53 pp., ISBN 0-8330-0521-9, \$15.00.

Evaluation of California's Permanent Disability Rating Schedule: Interim Report, Robert T. Reville, Seth A. Seabury, Frank Neuhauser, RAND/DB-443-ICJ, 2003, 56 pp., ISBN 0-8330-3552-5. Available only online at www.rand.org/publications/DB/DB443/index.html.

Evaluation of California's Permanent Disability Rating System, Robert T. Reville, Seth A. Seabury, Frank Neuhauser, John F. Burton, Jr., Michael D. Greenberg, RAND (forthcoming).

"Forty Years of Jury Verdicts," *Journal of Empirical Legal Studies*, Vol. 1, No. 1, March 2004, pp. 1-25, Seth A. Seabury, Nicholas M. Pace, Robert T. Reville.

Trends in Civil Jury Verdicts Since 1985, Erik Moller, RAND/MR-694-ICJ, 1996, 105 pp., ISBN 0-8330-2360-8, \$15.00.

The Disappearing Trial and Why We Should Care

By the Honorable Patrick E. Higginbotham

Judge Higginbotham sits on the U.S. Court of Appeals for the Fifth Circuit and is a member of the board of overseers of the RAND Institute for Civil Justice.

Throughout our history, we have subscribed to a system of open justice, dispensed in public courthouses owned by the public and paid for by the public, staffed by professional judges compensated from the public purse, with lay juries and professional trial lawyers as champions of the parties. The right to a trial is enshrined as part of the fabric of the American legal system.

Yet there is growing evidence that the trial is disappearing. Over the past 40 years, trials of every category of case in the federal courts—both civil and criminal—have steadily declined in number. Based on one set of data, civil trials, both bench and jury, have fallen from 5,802 in 1962 to 4,569 in 2002. As a percentage of all civil dispositions, the number of trials has dropped

from 11.5 percent to 1.8 percent. Similarly, the number of criminal trials has dropped from 14–15 percent of all criminal dispositions in 1976 to about 2 percent in 2002.

A similar decline appears to be taking place in the vastly larger systems of state courts, although the data are more elusive. In ten states with comparable data, for example, the total number of civil dispositions in general jurisdiction

courts decreased 12 percent between 1993 and 2002, but the number of civil trials dropped 32 percent. In 13 states, the total number of criminal dispositions rose 124 percent between 1976 and 2002, but the number of criminal trials decreased 18 percent.

Why trials are disappearing, and the related but even more difficult question of what it means, is not easy to say. On the criminal side, the chief reason behind the demise of the trial is that sentencing has been largely taken from the federal trial judge by congressional enactment of sentencing guidelines. These complex guidelines have effectively eliminated judicial discretion in sentencing. The guidelines have also given criminal prosecutors power in plea bargaining—a power that places a much higher risk on any defendant who chooses to go to trial. The end result of the guidelines is that the U.S. Congress has dramatically raised the cost of exercising one's constitutional right to trial.

On the civil side, the causes for the disappearing trial are different. The initial driving force away from civil trials was the Federal Rules of Civil Procedure, which were put in place in 1938. The rules allow a complainant to plead a claim in short and plain language. The rules also give both parties the right to discover the facts of the claims and defenses before trial. This “discovery” right, intended to facilitate private settlement by forcing the parties to lay all their cards on the table, enjoyed initial success.

But as the pretrial discovery process expanded over the decades from the 1930s to the 1970s, judges increasingly became “managers” of the process. In response, Congress in the 1970s set out to free judges from trial duties by creating federal magistrates. Most judges quickly handed off the burdensome task of

Discovery has now become the main event—the endgame—in pretrial civil litigation proceedings.



A courtroom in Sapulpa, Okla., is vacant in July while the judge is on vacation.

AP/WIDE WORLD PHOTOS/SUE OGROCKI

managing discovery to the magistrates, who were appointed by the district judges for statutory terms. Ironically, the magistrate system has mostly accelerated the movement toward an administrative processing of disputes rather than enabling trial judges to try cases.

Discovery has now become the main event—the endgame—in pretrial civil litigation proceedings. With less and less expectation of trial, the role for discovery envisioned by the 1938 reform has been greatly expanded. Despite the virtues of discovery—indeed, its necessity in many cases—its excesses have made the formal trial process less attractive than almost any alternative, including arbitration.

Furthermore, because judges and lawyers are increasingly unskilled and inexperienced in the mechanics of a trial, the measure of what is relevant in discovery itself has become blurred at best. The result is that mountains of information are often called for, even if such information would not be particularly pertinent in a trial setting.

An additional “culprit” in the steady decline of the civil trial is the gradual rise of alternative dispute resolution (ADR). Clearly, the declining number of civil trials over the past three decades parallels the rise of ADR, including structured mediation and arbitration. Yet it is not clear how much the shift toward

ADR reflects the merit of the process itself—in other words, a competitive success in the legal marketplace over trials.

Instead, much of the shift toward ADR could be the result of a system skewed both by mandates from Congress and judges that ADR be given the highest priority in the pretrial process and by the private bar’s seizure of the economic opportunity afforded by the additional effort required of attorneys in ADR programs. This trend is also encouraged by a profound change in the views of the U.S. Supreme Court, which now warmly embraces arbitration—a sea change from its original hostility to the enactment of the American Arbitration Act in 1925.

This new anti-trial culture is nourished further by the extraordinary numbers of prisoner cases that are filed in the federal court. There is virtually no expectation of trial in prisoner cases (which are civil cases filed by prisoners). This huge set of cases, though processed mostly by the offices of federal magistrates, nevertheless affects the entire federal court system. As an example, the U.S. Court of Appeals for the Fifth Circuit now employs more than 55 staff lawyers just to sort through the cases and to cast them in a manageable form for the judges. The point is not that prisoner litigation is handled improperly or can be abandoned, but rather that

In Colorado, Court Administrator Christine Yuhas prepares documents on the bench in Courtroom One at the Eagle County Justice Center in February for a pretrial hearing in the Kobe Bryant sexual assault case.



AP/WIDE WORLD PHOTOS/ED ANDRIESKI

this set of disputes contributes to a growing emphasis on administrative processing over trial.

With fewer and fewer trials, this incremental change feeds on itself. Both the bench and the bar have become increasingly comfortable with the disconnect between pretrial and trial proceedings that results from the disappearance of the trial as the ultimate resolution of a dispute.

To be fair, the settlement of disputes is a public good and is not at issue here. Moreover, the judicial system does not have the resources to try more than a fraction of all criminal and civil filings. What is of concern is the continuing diminishment of the enforcement of the law by trial, either by jury or by judge.

The growing imbalance between the numbers of cases decided by trial and those settled either under the threat of trial or in mediation and arbitration generates

outcomes that have gone largely unexamined. Among the most disconcerting of these outcomes are

- the potential loss of focus on the intent of the controlling law in these cases
- the perils of “private justice” in a system designed to be public and non-discriminatory
- the worrisome disconnect between trial and pre-trial phases, resulting both from an expanded discovery process and from increasingly distant and detached mediations and arbitrations.

Our trial system has been remarkably resilient and has served the country well, particularly in times of political turmoil and controversy. It is often said that the rule of law is America’s secular god and the courthouses its temples. If that expression captures any truth, then the growth of private adjudication at the expense of public trials comes at great cost. ■

How Can We Improve the Legal System?

Move It into the Information Age

By Roberta Reiff Katz

Roberta Reiff Katz, former general counsel of Netscape Communications Corporation and of McCaw Cellular Communications, Inc., is a member of the board of overseers of the RAND Institute for Civil Justice. She is the author of Justice Matters: Rescuing the Legal System for the 21st Century.

While many Americans may believe their civil justice system no longer serves the average person, even the “well-heeled” dread going to court. Today, most companies assume an average lawsuit will cost hundreds of thousands of dollars in attorneys’ fees (not to mention the soft costs of employee time devoted to document requests and depositions), can take years to conclude, and may well lead to a result that has nothing to do with culpability.

Such attitudes toward the legal system are relatively new. Back in the 1950s, lawyers and courts were viewed more as noble defenders of justice (in the “Perry Mason” style). Why the change? Some blame lawyers, pointing to high hourly billing rates, the push to run practices like businesses, and the new, take-no-prisoners quality of lawyer behavior. Others blame judges and court administrators, noting case backlogs and decrepit facilities. Finally, many blame present-day society, arguing that it promotes a lottery mentality in which lawsuits enable plaintiffs to hit the jackpot. While there is some truth to all these claims, the legal system has a more fundamental source of

dysfunction: The system can no longer process the volume and technicality of the information litigants bring to it.

Our legal system is based on an adversary system that has three elements: (1) the right of parties to present evidence to a judge and jury; (2) the need for the judge and jury to be “neutral and passive” (deciding only on the basis of the parties’ evidence); and (3) the use of procedural rules and professional codes of conduct to govern the collection, presentation, and testing of such evidence. While this is fairly common knowledge, it is more surprising to realize that our adversary system is the product of legal reforms begun in 18th-century England to meet the needs of an industrial age society experiencing new economic forces, urbanization, and a growing middle class.

Amy Branigan looks through court records at the Greenville County Courthouse in Greenville, S.C. Greenville has piloted a program that links magistrates and judges to a private Intranet site with access to the 15,000 court records that pass through the county each year.



AP/WIDE WORLD PHOTOS/MARY ANN CHASTAIN

The heart of our adversary system is evidence, and the heart of evidence is information. Thinking back to the 1950s, it is easy to see that information then was very different than it is today, both in quantity and character. Today, we are bombarded with vast quantities of information from multiple sources, including newspapers, magazines, radio, television, web sites, cellular phones, fax machines, and email. All these sources create information that can become evidence in a lawsuit. Computers and copiers add further to the volume

of potential evidence; in the past, when documents were typed with carbon paper, they were shorter in length, and fewer copies existed.

Not only is there more information today, but the character of information has also changed. In particular, much of the information that the courts deal with today has become specialized. For example, while most lawyers and doctors were generalists in the

1950s, today every field and subfield has its own special vocabulary and methodology, which are not always understandable to outsiders.

Yet despite these fundamental changes in the nature of information, we continue to expect our adversary system to operate as before. We presume that the same basic procedures are sufficient to collect, to present, and to evaluate evidence, even when we know there are vastly increased amounts of evidence in almost any kind of civil case. We further presume that, no matter how complex or specialized the issues, any citizen qualified to be a juror is capable of fully understanding and evaluating the evidence.

Such faulty presumptions have turned our adversary system partially on its head. Procedures that are intended to help bring the parties before the decision-makers—the judge and jury—have instead become the tools that attorneys use to keep a case from ever reaching trial. One technique for ending a lawsuit before trial is to bury the other side in paper and electronic data. The need for high-priced experts to assist in interpreting specialized evidence can make the cost of a case prohibitive. The change in the volume and character of evidence is a key reason why trials drag on

for months and even then do not always lead to just results. It is now commonplace for lawyers to hire jury consultants to help the lawyers win on the basis of style rather than substance, precisely because the evidence can be so difficult for a layperson to comprehend.

In fact, the fear of not being understood in the courtroom is a key reason why many companies turn to arbitration and mediation to resolve their disputes. Arbitration and mediation can address both the expertise issues and the cost concerns of litigants, and alternative dispute resolution is well suited to various kinds of disputes. Yet its wholesale use will render the common law, which depends on the evolution of court precedents, stagnant. And certain kinds of cases, such as securities class actions and mass torts, are better resolved in the courts.

To reinvigorate the adversary system, more than a tweaking is in order. The procedural rules and the professional codes require attention; for instance, the much-abused discovery rules should be thoroughly reviewed with the information age in mind. Changes to help the decisionmakers also are urgently needed; for example, judges and jurors need better ways to obtain unbiased education about hard-to-understand evidence. Neutral experts and even specialized classes could help. The use of more-specialized courts is another major reform to be considered. And, of course, the courts need to streamline virtually all their administrative processes through new communications and storage technologies.

The question that remains is, what role will the courts play? So far, one sees mainly isolated, piecemeal solutions, such as using electronic technology for case management, creating new rules to allow jurors to take notes and to ask questions, providing more subject-matter training for judges, and establishing a few specialized courts for commercial disputes.

Some groups, such as the National Center for State Courts—through its recently introduced Civil Justice Reform Initiative—are taking a more comprehensive approach that can lead to more-uniform results. These groups recognize that, just as the English legal system needed to be reformed for the industrial age, the American legal system also will have to change to meet the needs of the information age. ■

**Not only is there
more information
today, but the
character of
information has
also changed.**

What Have We Learned About Compensating Victims of Terrorism?

By Kenneth R. Feinberg

Kenneth Feinberg, special master of the September 11th Victim Compensation Fund of 2001, is a member of the board of overseers of the RAND Institute for Civil Justice.

Following the Sept. 11 terrorist attacks, the U.S. Congress immediately enacted a no-fault administrative compensation scheme—the September 11th Victim Compensation Fund of 2001—designed to provide tax-free awards to the almost 3,000 families who lost a family member on 9/11 and to those victims who were physically injured on that fateful day. By all accounts, the fund has been an unprecedented success.

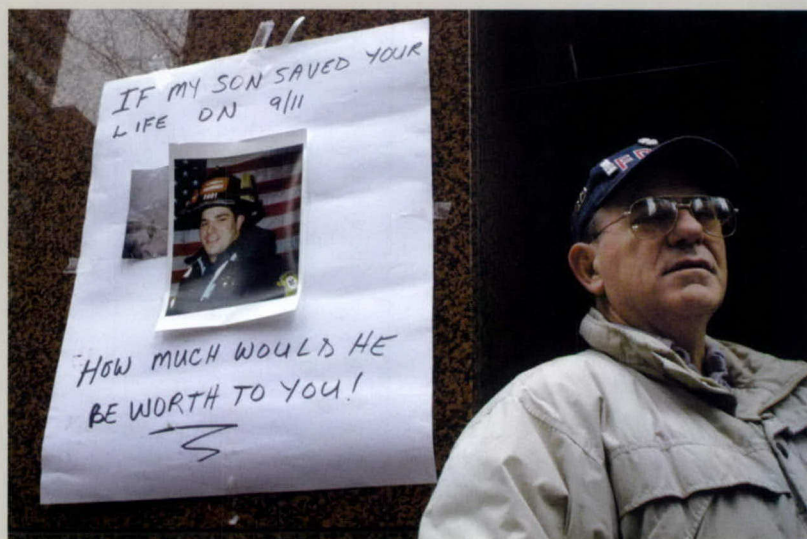
Over 97 percent of those eligible voluntarily applied to the fund rather than choosing to litigate against the airlines, the World Trade Center, the Port Authority of New York and New Jersey, the Massachusetts Port Authority, and others. The average tax-free award to surviving family members was more than \$2 million, with physical injury awards ranging from \$500 to \$8.6 million for a survivor who had suffered third-degree burns over 85 percent of his body. By the time the fund terminated on June 15, 2004, it had awarded more than \$7 billion to 5,553 eligible families and victims.

Despite its success, the fund has raised two central issues that need to be examined in full and submitted to open public debate: Who should be compensated? And by how much?

Regarding the first issue, why is the fund limited in scope to the narrowly defined category of victims of the 9/11 tragedy? What about the victims of the Oklahoma City bombing in 1995 or the victims of the U.S. embassy bombings in Kenya and Tanzania in 1998? Why aren't those people eligible for such public compensation? Indeed, what about the families of those who died in the first World Trade Center terrorist attack in 1993? How does one justify excluding them from the fund?

These questions go to the heart of a political and philosophical debate over the role of public compensation in a free society. One approach to dealing with this issue is to try to make fine-line distinctions among potential claimants by prioritizing victims. For example, one could distinguish between victims who

During a news conference challenging the caps placed on the amount of money granted by the federal September 11th Victim Compensation Fund of 2001, Vincent Ragusa stands next to a photograph of his son, firefighter Michael Ragusa, who perished in the World Trade Center attacks.



AP/WIDE WORLD PHOTOS/JOHN-MARSHALL MANTEL

suffer from foreign as opposed to domestic terrorism, or between those who maintain an effective right to litigate and those who don't. But such distinctions are ultimately unconvincing and certainly sound hollow to potential claimants seeking public compensation.

You will never convince a family who lost a loved one in Oklahoma City or in the 1993 World Trade Center attack that it makes sense to restrict public compensation to 9/11 victims. Prioritizing victims is risky business.

Instead, the only effective and convincing way to limit the scope of public compensation is to evaluate the problem from the perspective of the *community* rather than the *victims*. Such an approach would delineate the scope of a public compensation scheme and

determine who is eligible *after the fact*, looking at the psychic scars the nation as a whole suffered and the nation's immediate response following a terrorist attack.

Under this approach, the 9/11 victims are eligible for tax-free compensation because Congress deemed the magnitude and scope of 9/11 to be unique, greater than any previous related act of terrorism. In this sense, what makes 9/11 *different* is the community response following it. In terms of psychic scars, it affects the population in a similar way as the assassination of President John F. Kennedy, the attack on Pearl Harbor, and the American Civil War.

This emphasis on community response rather than victim characteristics seems the only convincing way to justify the limited scope and restrictive eligibility criteria of the federal 9/11 fund. Of course, such an approach undercuts any attempt to fashion eligibility criteria in advance, since a congressional response will depend on the effects of such an attack on our national community and since the barometer used to gauge public sentiment is by definition unknowable until and unless the terrorist event occurs.

Beyond the issue of *who* should be compensated in a public compensation scheme like the 9/11 fund is the issue of *how much* individuals should be compensated. The current law mandates that eligible claimants receive different awards based on the economic wherewithal and future economic losses suffered by

the victims. Thus, in the overwhelming majority of cases, the stockbroker's family receives more public compensation than the waiter's family, the banker's family more than the fireman's family, the next of kin of the bond trader who died at the World Trade Center more than the family of the corporal who died at the Pentagon.

Such an approach is tort based, grounded in the recognition that the loss of future earnings should be a relevant consideration in promoting just compensation. Juries do exactly this every day in every courtroom in our nation. But they do it quietly, according to local community standards and mores, and outside the public eye. Asking one individual to do so, such as a special master acting pursuant to a very visible public law, is another matter altogether. And when that individual is also mandated to offset other collateral sources of income, such as life insurance and pension income, this is most decidedly not merely a tort-based concept and further complicates matters.

A strong argument can be made that—if and when there is a next time and if and when compensation for terrorist victims is once again considered by Congress—all eligible claimants, however defined, should be given the same tax-free awards. Such a flat-payment approach would not only be easier to administer but would also minimize divisiveness among eligible claimants, who would no longer be able to argue that the loss of a loved one, such as a fireman, is being undervalued in favor of the loss of a stockbroker or banker.

But such an approach still begs important questions. How much compensation would each eligible claimant receive, and who would establish such an amount? Would increased awards be allowed in certain limited cases for “exceptional circumstances”? Would access to the tort system remain unencumbered? These are important questions that must be addressed even if a flat payment is determined to be more just and efficient.

The federal September 11th Victim Compensation Fund of 2001 constitutes a unique experiment in American history, providing very generous compensation to a relatively narrow group of eligible claimants and then funding such awards through tax-free public money. The program should fuel a healthy public debate over the strengths and weaknesses of this approach when it comes to compensating those who suffer from some of life's greatest tragedies. ■

A flat-payment approach would not only be easier to administer but would also minimize divisiveness among eligible claimants.

Patching Holes in the Medical Malpractice System Is No Longer Enough

By David M. Studdert

David Studdert, a lawyer and epidemiologist at the Harvard School of Public Health, is an adjunct member of the RAND staff.

Talk of a “medical malpractice crisis” is growing. The symptoms are all too familiar. Premiums for professional liability coverage are spiraling. Liability insurers are leaving the market. Health care providers are pressing for reforms to ease the burden of litigation and insurance costs. The trial bar is vigorously opposing any reforms that restrict the ability of injured patients to sue for compensation. And policymakers, seeking solutions, are caught between the diametrically opposed demands of two powerful professional groups—physicians and trial lawyers—both of which claim that patients’ interests are their guiding motivation.

If this all seems like *déjà vu*, it should. We faced similar crises in the 1970s and 1980s. The mid-1970s crisis was chiefly one of insurance availability. As malpractice insurers pulled out of volatile markets, physicians in a number of regions struggled to find liability coverage at any price. To escape the future whims of commercial carriers, physicians formed their own insurance companies; states also established “joint underwriting organizations” to act as insurers of last resort. Unfortunately, in the long run, securing coverage was not enough. A huge surge in the premium costs in many regions of the country during

the early-to-mid-1980s precipitated a second crisis, one of affordability.

The current crisis appears to be one of both availability and affordability. St. Paul’s Companies, one of the nation’s largest writers of medical malpractice insurance, announced in late 2001 that it was dropping this product line altogether. An exodus of insurers followed over the next two years, leaving thousands of physicians scrambling to find alternative coverage. In some states, such as Pennsylvania, the remaining insurers have either declined to write new policies or offered coverage only to physicians with unblemished claims records. Physicians have had to turn to their local joint underwriting associations, where they’ve found prohibitively high rates. In states such as Florida that do not require physicians to carry liability insurance, a growing number of physicians are “going bare”—a strategy in which physicians forgo insurance altogether and attempt to put their financial assets beyond reach of potential plaintiffs.

How are legislators responding? The short answer is that they are responding with pretty much the same tort reforms as before. As in the 1970s and 1980s, caps on non-economic damages are a popular counter. The Bush administration has come out strongly in support of caps, a response likely driven by the perception

Policymakers are caught between the diametrically opposed demands of two powerful professional groups.



AP/WIDE WORLD PHOTOS/SETH PERLMAN

Hundreds of doctors and nurses rally at the state capitol in Springfield, Ill., on April 28, demanding legislation to help them contend with soaring medical malpractice insurance rates.

that increases in the frequency of multimillion-dollar awards have fueled the current crisis. Previous research on the efficacy of caps *has* found that caps significantly reduce payouts, and some studies have also linked caps to reductions in premiums. But too little attention has been paid to the specific *types* of claims that are affected by caps and to the equity implications of applying a flat dollar cap. A recent study from the RAND Institute for Civil Justice provides valuable new information in this area (see news story on pp. 6–7).

Another tort reform strategy seeks to curb the rates and costs of litigation by limiting how much access plaintiffs have to the courts—for example, by shortening the time within which patients must lodge their claims. Yet another approach involves altering liability rules to make it more difficult for plaintiffs to recover compensation. New standards for informed consent, evidence, and expert witnesses are all examples of this approach.

Unfortunately, although such conventional tort reforms will calm the liability insurance market temporarily, they will do no more than that. Future crises are a safe bet. More important, the health care system and our knowledge of it have changed over the past decade, and they've changed in ways that demand more-creative responses to the perceived problem of litigation.

One change is that patient safety and the prevention of medical errors have become major policy issues. A series of landmark studies over the past 15 years has shed light on the enormous burden imposed by medical injury and has offered insights into how medical errors occur. Lessons from these studies have inspired the catch phrases of the modern patient-safety movement: blame-free environments, transparency, adverse-event reporting, disclosure of adverse outcomes to patients, and systemic approaches to understanding and combating errors.

Such aspirations could hardly be more at odds with the hallmarks of the tort system, with its individualized inquiries of fault, its adversarial proceedings, and its secrecy. Reconciling this clash of cultures presents a major challenge for researchers and policy-makers alike—a challenge that traditional tort reforms completely bypass.

The spread of “defensive medicine” is another change in the health care landscape. Deterrence is, of course, one of the main objectives of malpractice litigation: By deterring substandard care, so the theory goes, tort law helps to improve quality. But the evidence of a deterrent effect in health care is stunningly thin. Ironically, the strongest indications that litigation drives changes in provider behavior suggest that the effects on quality may actually run in the opposite direction. Defensive medical practices, such as the over-ordering of tests and physicians' refusal to perform risky procedures, are deviations from sound medical practice—deviations induced by a threat of liability.

An ever-expanding armory of diagnostic technologies creates fresh reasons and opportunities for defensiveness. Although the problem of defensive medicine is fairly well established, its pervasiveness continues to be the subject of fierce debate. Unfortunately, there are no reliable estimates of its fiscal effects on the health care system. Such data would inject valuable information into the debate.

A third change in the health care system is the nature of physician and hospital reimbursement for health care services. The advent of managed care has significantly constrained the ability of these providers to absorb premium hikes by passing them on to payers. Some commentators are concerned that the combination of rising premiums and tighter reimbursement will squeeze physicians out of practice, or at least drive them away from regions, patients, or procedures. The implications of such behavior for quality of care and access to services are potentially serious. Hence, careful monitoring of the situation is critical.

Measuring the scope and scale of malpractice litigation itself remains a perennial problem. Because the litigation is almost exclusively based in state courts, tracking it is a notoriously difficult task. RAND research has proven to be a credible and much-relied-upon source of information in this area with its reports on caseload trends in the civil justice system. For example, a recent study shows that malpractice verdicts have grown steadily as a proportion of all tort verdicts nationally, from 2 percent in the 1960s to 7 percent in the 1980s to 15 percent in the 1990s.

There is a growing sense that standard tort reforms merely tinker at the edges of a system that is patently dysfunctional to its core.

No other category of tort verdicts has experienced an increase of this magnitude.

Taken together, the shifts in the legal and health care spheres described above demand innovative responses. There is a growing sense that standard tort reforms merely tinker at the edges of a system that is patently dysfunctional to its core. As a recent Institute of Medicine report concluded, experimentation with alternative approaches to the compensation of medical injuries is sorely needed.

The prospect of wholesale redesign of the medical malpractice system raises some key research questions. What departures from the traditional court-based methods of adjudicating negligence are feasible? What alternatives will pass muster under state and federal constitutions? Negligence aside, what other criteria may be used to more efficiently and effectively determine patients' eligibility for compensation? What type of system redesign promises the greatest returns in terms of error reduction? If we dodge meaningful reform and ignore such tough questions, the result, a decade from now, is entirely predictable: déjà vu all over again. ■

Should We Give Up on Medical Product Liability?

By Steven Garber

Steven Garber is a RAND senior economist and director of The Law & Health Initiative, a joint program of the RAND Institute for Civil Justice and RAND Health.

Product liability, which holds manufacturers liable for injuries associated with their products in some circumstances, is among the most contentious domains of civil justice policy. For more than two decades, the U.S. Senate has repeatedly debated product liability, an issue that had previously been the sole province of the states. These debates have led to federal legislation that limits liability for four types of products—childhood vaccines, small aircraft, biomaterials in implanted medical devices, and antiterrorism technologies—in each case because of widespread concerns that the products would not be available unless manufacturers were less threatened by liability.

But after decades of fierce lobbying, substantial campaign contributions, acrimony, filibusters, unsuccessful cloture votes, and a presidential veto, no broad-based federal product liability legislation has been adopted. Nor is a consensus emerging that product liability policy should be left to the states. As with many policy issues facing America today, the federal debate over product liability is deadlocked.

When it comes to medical products, however, there is grow-

ing interest in a radically different approach to pursuing the social goals of product liability. This approach would entail replacing rather than revising product liability for medical products.

The two key social goals of product liability are (1) deterring the adoption of unreasonably unsafe product designs, production processes, and product warnings and (2) fairly compensating those who are injured while using unreasonably unsafe products. In theory, a product liability system can effectively—indeed, perfectly—promote both of these goals. It seems that in practice, however, product liability often fails to do a satisfactory job of either deterring or compensating.

Regarding deterrence, my 1993 study of product liability for pharmaceuticals and medical devices found a mixture of socially desirable and undesirable effects. Among the former were hastening the withdrawal of unreasonably hazardous products and encouraging compliance with U.S. Food and Drug Administration (FDA) regulations. Among the undesirable consequences were discouraging innovation in some product areas and tailoring product warnings to promote the legal safety of manufacturers rather than the physical safety of consumers.

Regarding compensation, which I did not analyze in my 1993 study, both the patterns and costs seem discouraging. As for patterns, there appear to be major disparities in compensation received by individuals in similar circumstances. The disparities stem from several factors: difficulties in determining causes of injuries; differences in skill and charisma among attorneys and expert witnesses; varying attitudes of individual judges and juries; and somewhat infrequent, but sometimes enormous, punitive damage awards. As for costs, our dispute-driven system requires troubling amounts of

There is growing interest in a radically different approach to pursuing the social goals of product liability.

resources, such as the time of claimants, attorneys, judges, and juries. Indeed, a 1986 RAND study conducted by Jim Kakalik and Nick Pace found that for a variety of tort cases, including product liability, it took about \$1.34 worth of resources to transfer each \$1 in compensation to plaintiffs.

Such problems help to explain the growing interest in an entirely new policy approach: giving up on product liability for medical products. Proponents of this approach argue for relying on FDA regulation to assure product safety and instituting an administrative system for compensation. FDA regulation of drugs and high-risk medical devices is perhaps the most stringent of all federal product-safety regulation. A no-fault compensation system could, in principle, greatly lower the transaction costs and narrow the disparities in compensation among people in similar situations.

If uncoupling safety assurance from injury compensation for medical products begins to attract interest from many policymakers, they will—and should—have a lot of questions. Many of them will be directed to the RAND Institute for Civil Justice. These questions will be of two general forms: (1) How well is the current tort-based system of product liability working? and (2) What are the challenges and pitfalls in relying on administrative regulation and compensation instead?

Regarding the first question, the major empirical gap is the lack of systematic study of compensation patterns for medical product injuries. Regarding the second question, there are many administrative design issues that will call for systematic analysis. These issues will include the types of injuries that should trigger compensation for users of particular medical products, the amounts of compensation, the cost of operating the system, and the pros and cons of alternative financing mechanisms.

Abandonment of product liability for all medical products is all but unimaginable during the next five—or even ten—years. But the possibility could find its way onto the policy agenda in that time frame. If such a proposal gains traction, then attention will focus, more likely than not, on how to get started—more specifically, on the kinds of products and injuries that might be most amenable to removal from the product liability system. Thoughtful, empirically grounded consideration of the pros and cons



AP/WIDE WORLD PHOTOS/JACK DEMPSEY

of turning away from disputes over medical product injuries could breathe life into a policy debate that has relied for too long on anecdotes and exaggerations and seems to be heading nowhere. ■

Related Reading

Costs and Compensation Paid in Tort Litigation, James S. Kakalik, Nicholas M. Pace, RAND/R-3391-ICJ, 1986, 182 pp., ISBN 0-8330-0782-3, \$15.00.

Product Liability and the Economics of Pharmaceuticals and Medical Devices, Steven Garber, RAND/R-4285-ICJ, 1993, 266 pp., ISBN 0-8330-1450-1, \$15.00.

"Product Liability, Punitive Damages, Business Decisions and Economic Outcomes," *Wisconsin Law Review*, Vol. 1998, No. 1, 1998, pp. 237–295, Steven Garber. Also available as RAND/RP-747, no charge.

"Punitive Damages and Deterrence of Efficiency-Promoting Analysis: A Problem Without a Solution?" *Stanford Law Review*, Vol. 52, No. 6, July 2000, pp. 1809–1820, Steven Garber. Also available as RAND/RP-920, no charge.

Katie Roskam, 4, from Littleton, Colo., gives a thumbs-up before receiving a vaccination shot from nurse Bernadette Loya at Swedish Hospital during its "Shots for Tots" program in February. The United States has an administrative compensation program for vaccine injuries.

The Globalization of Mass Litigation

By Deborah R. Hensler

Deborah Hensler, the Judge John W. Ford Professor of Dispute Resolution at Stanford Law School, is director of the Stanford Center on Conflict and Negotiation.

The establishment of the ICJ in 1979 coincided—perhaps not entirely by accident—with the growth of mass tort litigation in the United States. Although asbestos and tobacco lawsuits are now viewed as emblematic mass torts, most of the early mass tort cases targeted the pharmaceutical industry. By the mid-1980s, the courts were awash with suits against the manufacturers of contraceptive devices and pregnancy-related drugs.

Commentators distinguish mass tort litigation from more-ordinary torts (typically individual claims for personal injury or property damage) on a number of different dimensions. Some commentators are struck mainly by the scale of the litigation: thousands of cases—sometimes tens of thousands—brought against one or a few companies, representing a risk so huge as to threaten the existence of major corporations. Other commentators focus on the aggregative procedures—such as multidistrict litigation, consolidation, class actions, and other global settlement devices—that judges, lawyers, and parties have adopted to reduce the costs of resolving large numbers of cases.

The mass personal injury and property damages lawsuits of the 1980s were not the United States' first experience with large-scale litigation. The amendment of Rule 23 of the Federal Rules of Civil Procedure (the

modern class-action rule) in 1966 was followed by a surge of consumer antitrust and securities litigation. However, within a few years, the courts had imposed limits on the application of the newly revised rule. By the late 1970s, controversy over class actions had died down, and it was tort reform, rather than class-action reform, that stirred the ICJ's initial sponsors.

It was not until the mid-1990s, nearly 20 years later, that the growth in securities and consumer litigation stirred renewed controversy over class actions. By 2000—with “traditional” mass tort litigation (such as asbestos cases) surging and state attorneys general targeting the tobacco, gun, managed care, and fast food industries—mass torts and class-action reform were back in the headlines. Now, mass tort lawsuits, including class actions, are spreading worldwide.

A Global “Disease”?

Much has been written about the benefits and costs of the expansion of mass litigation. One thing is clear: When it comes to civil litigation, the old adage “there’s strength in numbers” has special meaning. For good or ill, mass litigation, in all its varied forms, has unlocked the courthouse doors to Americans with diverse claims ranging from discrimination to consumer fraud to personal injury to violations of human rights.

But what happens outside the United States? A decade ago, I was often introduced to foreign audiences as an expert on “the American disease,” defined variously as “popular litigiousness,” “contingent fee lawyering,” and “class actions run amok.” Foreign corporate representatives said they wanted to learn more about American-style litigation so they could determine how to keep it from their shores. American corporate representatives offered data showing

the slimness of their litigation budgets for products marketed abroad, compared with budgets for products marketed here at home.

When I travel outside the United States today, in contrast, I am as likely to be consulted on how to fashion an American-style litigation system—or how to negotiate within one. Class actions are available in several Canadian provinces. The English courts have adopted a “group litigation” procedure that provides for the collection of civil suits arising out of the same or similar factual circumstances. The procedure operates much like “multidistricting,” the procedure for consolidating cases in the U.S. federal courts. Australia has adopted a class-action rule modeled on Rule 23, as has Indonesia. Brazil’s consumer code includes a provision for class actions. Sweden recently debated legislation providing for class actions. And corporations around the world must come to U.S. courts to defend themselves against class-action claims under the Alien Tort Claims Act.

More-subtle signs of a worldwide convergence toward American-style mass litigation abound. Last year, a Taiwanese lawyer visiting Stanford as a Fulbright scholar wrote a paper for my complex litigation seminar on “representative securities litigation” in Taiwan, which bears considerable resemblance to class actions here. A Venezuelan lawyer in the same seminar wrote about how Venezuelan lawyers joined the mass tort litigation against Ford and Firestone in U.S. courts. An American class-action attorney and guest lecturer noted that his firm’s practice is becoming increasingly internationalized.

This past fall, the Taiwanese student arranged a meeting for me with Taiwanese workers who were pursuing a toxic exposure case in Taiwan’s courts. The workers wanted to discuss whether and how they might gain access to U.S. courts. This past spring, several dozen law schools—consciously modeled after American law schools—opened in Japan, allegedly in response to Japanese corporations’ calls for more lawyers to deal with the demands of globalization.

Or Just a Symptom?

It is tempting to think that the “American disease” is indeed being spread throughout the world by American lawyers. But while civil procedures honed in U.S. courts may play a key role in *shaping* mass litigation around the world, the litigation itself reflects deeper trends that are spreading worldwide. Some scholars



AP/WIDE WORLD PHOTOS/ANDRES LEIGHTON

A Venezuelan tire store owner moves some old Firestone tires in Caracas, Venezuela, in August 2000. Venezuelan authorities have sought to hold Ford Motor Co. and Bridgestone/Firestone Inc. responsible for at least ten deaths in 62 car accidents allegedly caused by defective tires on Ford Explorers distributed in Venezuela.

have suggested that as standards of living increase, people seem to have less taste for risk; perhaps they have less tolerance for questionable business practices as well. Globalization also imposes new requirements on businesses worldwide, including the requirement to comply with myriad governmental regulations.

But must an increased global desire for what Stanford law professor Lawrence Friedman has dubbed “total justice” lead inevitably to more litigation? The desire could lead instead to demands for government investigation of mass injustices and for social compensation schemes—for public rather than private enforcement of rights and obligations.

The American experience suggests that a preference for private litigation as a strategy for achieving economic and social aims may flow naturally from an antigovernment, capitalist ethos. Perhaps we should not be surprised if the global spread of capitalism and the worldwide promotion of the rule of law lead other countries to make more use of their courts and to look more kindly on adopting private litigation strategies to achieve policy objectives. As lawyers and litigants around the world look into their mirrors, increasingly, the faces they see are ours. ■

Related Reading

Class Action Dilemmas: Pursuing Public Goals for Private Gain, Deborah R. Hensler, Nicholas M. Pace, Bonnie Dombey-Moore, Beth Giddens, Jennifer Gross, Erik Moller, RAND/MR-969-ICJ, 2000, 633 pp., ISBN 0-8330-2601-1, \$34.50 (paperback); 0-8330-2604-6, \$55.00 (hardcover).

“Revisiting the Monster: New Myths and Realities of Class Action and Other Large Scale Litigation,” *Duke Journal of Comparative & International Law*, Vol. 11, No. 2, Spring/Summer 2001, pp. 179–213, Deborah R. Hensler. Also available as RAND/RP-979-ICJ, no charge.

Securities Fraud Class Actions

70 Years Young

By Eric Talley

RAND economist Eric Talley is also a law professor at the University of Southern California.

By most measures, today's securities fraud class actions—which offer individual investors the chance to seek redress for losses stemming from the violation of federal securities laws—are sophisticated, well organized, and significant. But perhaps more than anything, they are big, big business.

Not only have the sheer number of private securities class actions been trending decidedly upward in the last eight years, but the average settlements have similarly increased, from around \$10 million in 1996 to well over \$20 million last year. That is more than a 10 percent annual increase in the amount of the average settlement in the United States.

Notwithstanding the enormity of these figures, securities fraud litigation is a relatively youthful species in the world of private class actions. Until the 1930s, private individuals could bring fraud litigation against corporations only in extremely limited circumstances. But after the passage of the Securities and Exchange Acts in 1933 and 1934, courts gradually began to reshape and to expand the opportunities that underlie private class actions.

By the 1970s, the U.S. Supreme Court had recognized the right of individuals to sue under the most general of securities fraud provisions (so-called Rule 10b-5 suits) but restricted such lawsuits to those individuals who had bought or sold securities (such as stocks and bonds) during the period of an alleged fraud. In the 1980s, the court helped catalyze a surge

in plaintiff litigation by permitting class actions to go forward even if the plaintiff could not demonstrate that each class member had relied upon (or even knew about) the alleged act of fraud.

This surge in class-action filings continued well into the 1990s. From a legal perspective, though, the pendulum began to swing determinedly in the opposite direction. In 1994, for example, the Supreme Court eliminated “aiding and abetting” theories of liability for private plaintiffs, effectively negating most private actions against lawyers, accountants, and auditors who merely assisted the issuers of securities in committing fraud. In 1995, the U.S. Congress got in on the act, passing a comprehensive statutory reform that introduced pleading and evidentiary protections for defendants and enhanced the safeguards for firms that make misleading forecasts of future earnings.

Because these federal reforms were widely perceived to favor defendants, the immediate (and, in hindsight, obvious) response from the plaintiff's bar was to relocate some litigation to the state level, resuscitating little-used state antifraud statutes. Congress effectively ended this migration to state law in 1998 by amending its earlier legislation to make federal law preempt state law for class actions.

The increasingly difficult road faced by securities class-action claimants during the late 1990s perhaps helped to fuel a perfect storm for the spate of corporate scandals that came to light beginning in 2001 (see the figure). Now, well into the decade, we are on the cusp of yet another landmark transition in securities class actions with the passage of the Sarbanes Oxley Act of 2002 (or SOX).

The SOX legislation will almost certainly change the future dynamics and characteristics of many secu-

rities fraud class actions through a number of different avenues. First, because the legislation extends the time limitations that class-action plaintiffs have to file a private action, filing rates are likely to increase, and dismissal rates may even decrease.

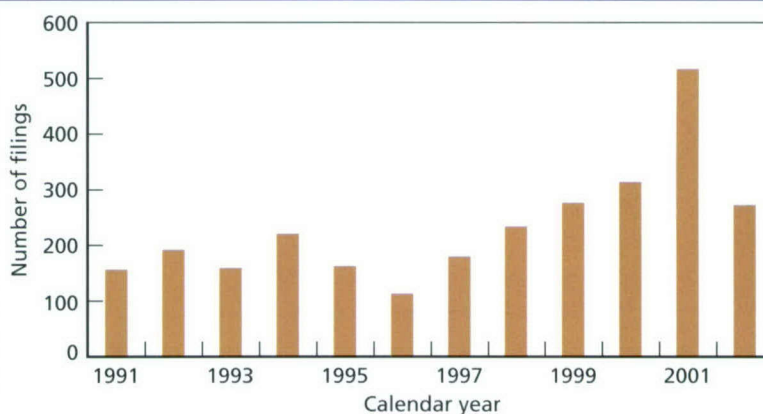
Second (and less directly), the SOX reforms may fundamentally change the way in which private and public enforcement interacts. Historically, private litigants tended to shy away from pursuing the same defendants pursued by the federal Securities and Exchange Commission (SEC), because the fines and penalties collected by the SEC depleted the resources that plaintiffs could claim for themselves. Consequently, private and public litigation largely served as complementary institutions.

SOX, however, specifically advises the SEC to set aside a significant portion of its recovery into a “fair fund” to be used to compensate private litigants. Under this mandate, private litigants are more likely to target the same companies targeted by the SEC, waiting for the government to use its procedural advantages in litigation to obtain verdicts and then drawing on the fund created by the government’s efforts. Ironically, this aspect of SOX may well have the ultimate effect of *narrowing* the reach of securities fraud laws, because public and private enforcers are now more likely to replicate one another’s efforts.

A third way in which the SOX legislation is likely to alter the dynamics of securities fraud class actions is related to a number of corporate governance and executive compensation reforms embedded within the legislation. The reforms require, among other things, chief executive officer (CEO) certification of financial reports; mandatory reports on internal controls within firms; independence requirements for auditors, boards, and subcommittees; and various prohibitions on the type and timing of CEO compensation.

On first blush, these provisions would not appear to have a direct effect on private class actions, because such cases specifically prohibit private plaintiffs from filing suit after a violation. Nevertheless, if the past few decades have taught us anything, it is that the securities bar is highly creative and adaptive. It is virtually certain that private plaintiffs will attempt to point to SOX violations routinely as evidence for more general securities fraud allegations, even if those specific violations do not immediately give rise to liability. It is hard to imagine that courts will not be at least marginally receptive to such arguments. On the other hand, the

Federal Private Securities Fraud Claims Spiked in 2001



SOX reforms might inspire good corporate governance reforms, which could help to reduce litigation risk by making shareholders less reliant on their threat to litigate. All of these are empirically researchable questions.

But even beyond SOX, the face of securities class actions may also change through other forces. For example, the facts that give rise to securities class actions in a typical case are often (though not always) related to claims that shareholders make in “derivative” litigation under state law. As distinct from class actions, shareholder derivative actions involve a single, self-appointed plaintiff who files suit against a company’s managers on behalf of the entire corporation. While class actions have historically proven to be the most lucrative and attractive, recent years have seen a significant increase in the number of shareholder derivative suits that could be brought just as easily as securities fraud actions.

State courts, moreover, are becoming unexpectedly receptive to such claims. In many ways, then, the derivative action has become the chief state-law alternative to the federal class action, at least since the effective elimination of state law securities class actions in 1998. Understanding the trends in federal securities litigation over the next few decades, then, will require that we keep tabs on this additional trend in the state courts as well.

Many of the changes in federal and state laws relating to securities fraud over the past 70 years have shifted the balance between plaintiffs and defendants. The balance is shifting once again, in both intended and unintended ways. Continuing research in these areas will help policymakers shape these still youthful laws into mature ones. ■

A Time for Facts, Not Overblown Anecdotes

By Robert S. Peck

Robert S. Peck, president of the Center for Constitutional Litigation, is a member of the board of overseers of the RAND Institute for Civil Justice.

The Cardiff Giant was once called America's greatest hoax. The elaborately concocted 19th-century fraud involved a 10-foot, 3,000-pound stone sculpture of a man passed off as a petrified giant from an earlier age. Even after its true origin became known, large paying audiences continued to flock to it. P. T. Barnum, the self-titled "Prince of Humbug," attempted to purchase the giant for his circus, offering the then-incredible sum of \$60,000. When his offer was spurned, he had a wooden duplicate carved. In December 1869, the original giant and Barnum's wooden copy competed for customers in New York City, two blocks away from each other. Perhaps owing to Barnum's showmanship, the ersatz version outdrew the original.

Like an audience that wants to believe the unbelievable, policymakers and the public have jumped into the tort-reform debate with little understanding of the true state and nature of the civil justice system. Treated

to well-funded advocacy built around outrageous tales of frivolous lawsuits, fractured anecdotes about wealth-redistributing juries, and cartoonish portrayals of legitimate lawsuits, many people have a significantly distorted view of how our courts and juries work. Phrases like "litigation lottery" and "tort taxes" have entered the lexicon of public discourse, despite how distant these terms are from reality. In one comprehensive review of the available empirical data, University of Iowa law professor Michael Saks found the self-styled reformers' negative characterization of juries and the civil justice system "built of little more than imagination."

In contrast to the system portrayed as broken in these debates, the civil justice system does a remarkable job of leveling the playing field between those with political influence and wealth and those with no claim to be societal favorites. Of the millions of cases that pass through the system each year, only the smallest handful prove controversial. To be sure, the system is far from perfect, and improvement should always be sought. However, a skewed caricature of the system and wild urban myths about specific lawsuits are not the basis for wise public policy development.

Instead, two elements, often given short shrift in the debate, deserve greater attention. First, access to justice is an American birthright. With a genealogy that dates at least back to the Magna Carta and confirmed in the U.S. Constitution, the right to one's day in court and a fair resolution of one's claims is not "cause for consternation" but, as the U.S. Supreme Court determined in 1985 in *Zauderer v. Office of Disciplinary Counsel*, "an attribute of our system of justice in which we ought to take pride." Any new policy choices that are considered must harmonize with the protection of universal access to the courts. Second,

Most criticism of excessive jury awards ignores the fact that the liability system already has mechanisms for reducing such awards.



Dan Eife, center, addresses hundreds of demonstrators and lobbyists who filled the capitol rotunda in Harrisburg, Pa., on March 9, as lawmakers prepared to vote on the issue of whether to limit the dollar amount that juries can award for pain and suffering in civil liability suits. Electrocuted in a 1995 industrial accident, Eife lost both hands and suffered severe damage to one leg.

AP/WIDE WORLD PHOTOS/CAROLYN KASTER

the stakes at issue—the preservation of a fair and available civil justice system—demand that policymakers of good will look beyond the rhetoric and examine research that gives a clearer and less-fevered portrayal of the legal landscape. The ICJ's work on these issues exemplifies the type of reliable data that can serve public policy needs in a way that pure advocacy cannot.

For instance, the ICJ's work on trends in jury verdicts has shown that jury awards are not rising at staggering rates, but instead tend to increase in line with the rate of inflation and the underlying costs being compensated (increasingly, medical costs). ICJ research has also shown that most criticism of excessive jury awards ignores the fact that the liability system already has mechanisms for reducing such awards. One ICJ study has shown that, on average, jury awards are reduced to 71 percent of the original award through posttrial judicial actions—and that larger awards (over \$10 million) are reduced, on average, to 57 percent of the original amount. This kind of empirical data, rather than raw speculation or political warfare, should fuel our determination to make the best civil justice system in the world even better.

With civil justice taking center stage in modern public policy debates, the need for research on how we can guarantee access to justice while maintaining a fair and sensible system is greater than ever. We need data that debunk the fanciful anecdotes and the unrepresentative (and often inaccurate) headlines that too often substitute for hard facts. Not to be lost in the data, though, must be the injured person's perspective, where the real human dimensions and ramifications of any new policy direction can be understood. Only then—by relying on hard data representative of the experience of real people—will the promise of civil justice be fully realized. ■

Related Reading

"Do We Really Know Anything About the Behavior of the Tort Litigation System—and Why Not?" *University of Pennsylvania Law Review*, Vol. 140, No. 4, April 1992, pp. 1147–1292, Michael J. Saks.

"Forty Years of Jury Verdicts," *Journal of Empirical Legal Studies*, Vol. 1, No. 1, March 2004, pp. 1–25, Seth A. Seabury, Nicholas M. Pace, Robert T. Reville.

Posttrial Adjustments to Jury Awards, Michael G. Shanley, Mark A. Peterson, RAND/R-3511-ICJ, 1987, 98 pp., ISBN 0-8330-0874-9, \$15.00.

Racial Profiling— Not Always Black and White

By Greg Ridgeway

Greg Ridgeway is a statistician at RAND.



PHOTO: DIANE BALDWIN

How prevalent is racial profiling? Anecdotal evidence abounds that racial profiling occurs, but to make sound policy, we need more than just anecdotes—we need hard data. One fortunate consequence of racial profiling being such a high-profile issue of late is that we now have lots of hard data; hundreds of law enforcement departments are either voluntarily collecting such data or being compelled by the U.S. Justice Department to do so.

With the data collection has come a spate of studies—using those data—that purport to show that racial profiling is either a problem (statewide studies in Texas and Massachusetts) or not a problem (a local study in Sacramento). So do such studies actually tell us whether racial profiling is occurring? Unfortunately, the answer is not black and white.

Determining whether racial profiling occurs in the decision to stop a motorist seems simple enough: Compare the collected data on the racial distribution of traffic stops against some “benchmark” of the racial

distribution that we would expect if police are not racially profiling; any difference between the two distributions could be evidence of racial profiling. In Oakland, California, for example, 56 percent of

those stopped are black, while, according to the census (one of the more commonly used benchmarks), only 35 percent of the population is black.

However, all benchmarks in urban settings have fatal flaws. Using the census has been widely discredited, because driving patterns and behavior may differ by race. For example, many blacks live in high-crime

areas to which police devote more manpower, and, thus, blacks may be stopped more than whites simply because blacks are more exposed to the police.

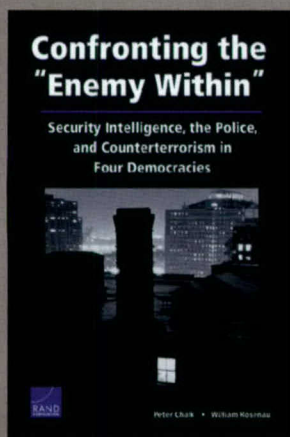
Our work analyzing data from Oakland shows that it's possible to get around the problem of benchmarks by bypassing them altogether. We looked directly at whether an officer's ability to identify a driver's race in advance influences whom the officer stops. Because an officer's ability to identify a driver's race in advance degrades as the day moves from daylight to darkness, we compared the distribution of the driver's race in stops made in daylight to those made after dark. In particular, we compared stops occurring near the boundary of daylight and darkness—or dusk—a brief but crucial interval during the transition from day to night and during which the driving population cannot quickly change. This innovative approach produced credible results that showed little evidence of racial profiling in the decision to stop motorists.

Of course, what happens after the stop can also reveal racial profiling. In Oakland, we did see some signs of racial bias, for example, in the greater likelihood of blacks being pat-searched for weapons than whites. But had we not built comparison groups to control for factors other than racial bias—factors such as region, time of day, and age of driver—our results would have overstated the problem of racial profiling significantly and, more likely than not, led to inaccurate headlines in the local newspapers.

Racial profiling will continue to be a flash-point issue, driven on all sides by contentious debate from multiple stakeholders. While we are on the right track by collecting data—a trend that will increase if the U.S. Congress passes the End of Racial Profiling Act mandating data collection for all law enforcement agencies receiving federal funds—we must do more to ensure that credible approaches are used to analyze that data. If we fail in that charge, we run the risk of inflaming stakeholders and public opinion and, even more important, of leading policymakers to make ill-informed decisions to implement the wrong remedies. ■

**All benchmarks
in urban settings
have fatal flaws.**

New Books from the RAND Corporation



Confronting the "Enemy Within" Security Intelligence, the Police, and Counterterrorism in Four Democracies

Peter Chalk, William Rosenau

Critics have charged that the Federal Bureau of Investigation, while qualified to investigate terrorist incidents after the fact, is not equipped to adequately gather and assess information to prevent attacks. Some have called for the creation of a new domestic intelligence service. The authors examine the origin, development, and functions of intelligence organizations in the United Kingdom, France, Canada, and Australia. The authors assess the terrorist threat in each country, the intelligence organization's role in terrorism threat mitigation, the organization's relationship with law enforcement agencies, and the means and modalities by which the organization is controlled and monitored. The analysis is intended to help inform debate within the United States on the advisability of creating a dedicated information collection and surveillance body that operates outside the existing structure of the FBI.

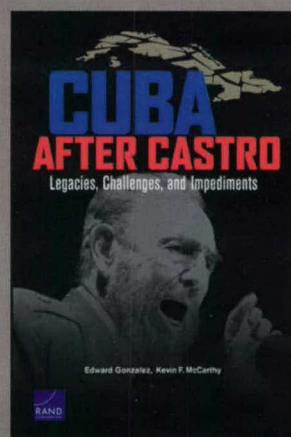
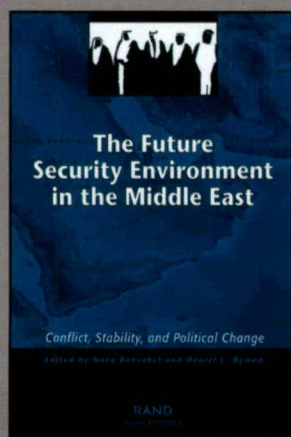
88 pp. • 2004 • ISBN 0-8330-3513-4 • \$18.00 • paper

The Future Security Environment in the Middle East Conflict, Stability, and Political Change

Nora Bensahel, Daniel L. Byman, editors

The security environment in the Middle East has become increasingly complicated during the past decade. This volume identifies trends that are likely to shape regional security in the Middle East. Each chapter addresses a different substantive area, ranging from political and economic trends to energy policy and weapons proliferation. The authors examine challenges posed by political reform, economic reform, civil-military relations, leadership change, and the information revolution. The book concludes by identifying the implications of these trends for U.S. foreign policy.

364 pp. • 2004 • ISBN 0-8330-3290-9 • \$30.00 paper



Cuba After Castro Legacies, Challenges, and Impediments

Edward Gonzalez, Kevin F. McCarthy

As Cuba nears the end of the Castro era, several key questions emerge. How will the legacy of Fidel Castro's four-decade rule affect a post-Castro Cuba? What political, social, and economic challenges will Cuba need to confront? The authors examine the sociopolitical legacy and economic challenges that the successor government will face—including the role of Cuba's youth, the growing racial divide, the aging population, and the weak economy and industrial sector. The authors review the policy implications for the United States and suggest alternatives that may help foster a stable, prosperous, democratic Cuba.

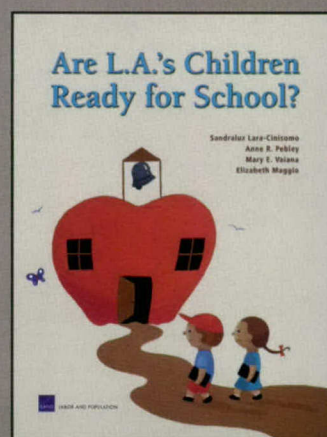
151 pp. • 2004 • ISBN 0-8330-3535-5 • \$20.00 paper

Are L.A.'s Children Ready for School?

SandraLuz Lara-Cinisomo, Anne R. Pebley, Mary E. Vaiana, Elizabeth Maggio

This exploration of school readiness focuses on how the home literacy environment, parenting behavior, and social characteristics are associated with two aspects of school readiness: basic skills, such as reading and math, and behavior problems. Because resources for school-readiness programs are limited, it is particularly important to focus these resources on the children who need them most—those whose mothers are poorly educated and those living in poor neighborhoods. The findings provide a clear picture of the factors that affect school readiness.

57 pp. • 2004 • ISBN 0-8330-3623-8 • \$20.00 paper



The RAND Corporation is a member of the Association of American University Presses (AAUP), the largest organization of non-profit scholarly presses in the world.

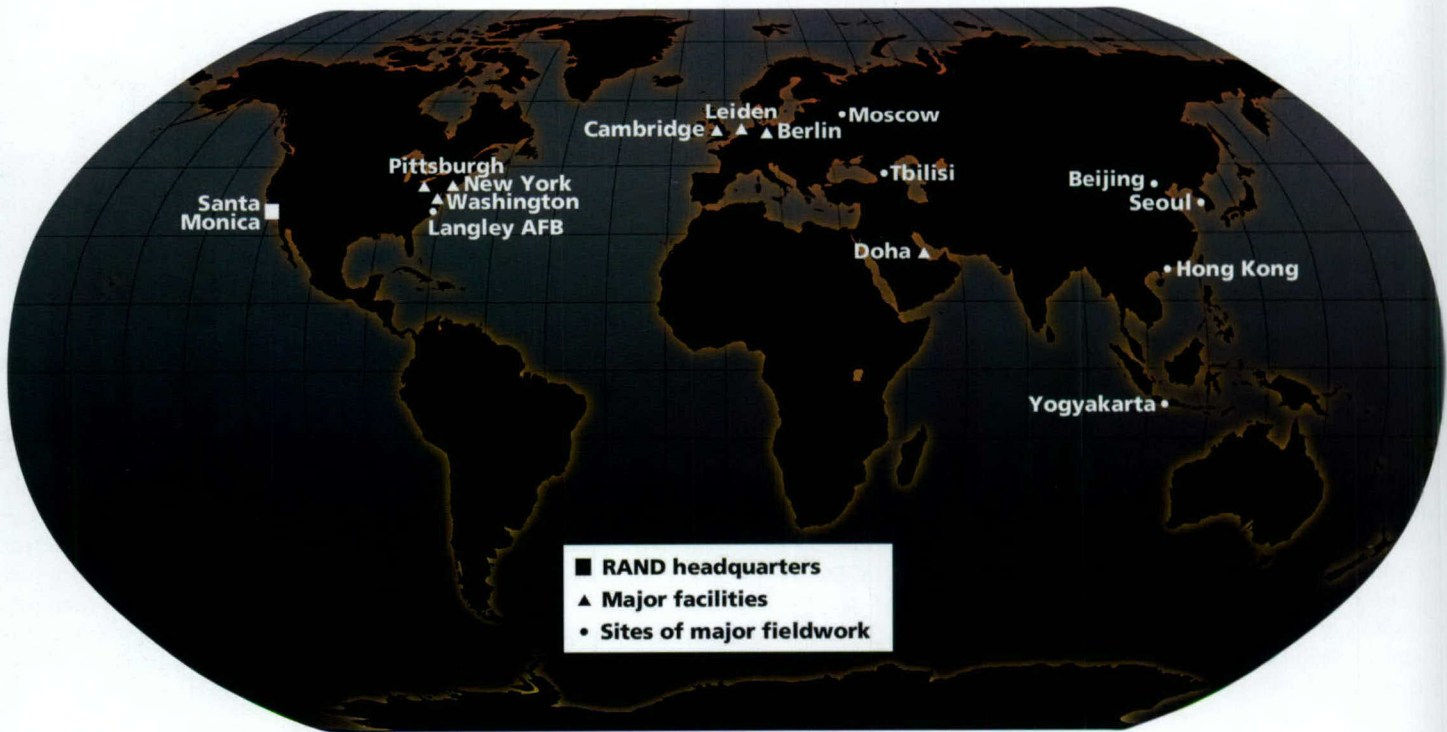


To order these or other RAND publications, please contact:
RAND Distribution Services
1700 Main Street, P.O. Box 2138 • Santa Monica, CA 90407-2138
Phone: 877-584-8642 (toll free); 310-451-7002 (outside the United States)
Fax: 310-451-6915 • Email: order@rand.org

For new and recent titles on social and international policy, visit www.rand.org/publications.

Visit www.rand.org to discover a global resource.

FEATURED FINDINGS—The latest ideas and projects from RAND staff. | **NEWS AND COMMENTARY**—News releases, congressional testimony, and editorials. | **BOOKS AND PUBLICATIONS**—Books for sale, bestsellers, bibliographies, and free online subscriptions. | **EDUCATION AND FELLOWSHIPS**—Pardee RAND Graduate School, Graduate Student Summer Associate Program, Military Fellows Program, postdoctoral fellowships, workshops, and seminars. | **POLICY CIRCLE**—Events calendar and membership information for the RAND Policy Circle, a group of donors who meet regularly with experts on current public policy and social issues.



CP-22-0408

RAND

Corporate Headquarters
1700 Main Street, P.O. Box 2138
Santa Monica, CA 90407-2138

Washington Office
1200 South Hayes Street
Arlington, VA 22202-5050

Pittsburgh Office
201 North Craig Street, Suite 202
Pittsburgh, PA 15213-1516

New York Office
215 Lexington Avenue, 21st Floor
New York, NY 10016-6023

RAND-Qatar Policy Institute
P.O. Box 23644
Doha, Qatar

RAND Europe—Berlin
Uhlandstrasse 14
10623 Berlin
Germany

RAND Europe—Cambridge
Grafton House
64 Maids Causeway
Cambridge CB5 8DD
United Kingdom

RAND Europe—Leiden
Newtonweg 1
2333 CP Leiden
The Netherlands

NON-PROFIT ORG.
U.S. POSTAGE

PAID
THE RAND
CORPORATION